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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**DEATH, TAXES, AND DISASTERS: AFSOF'S UTILITY
IN DISASTER RESPONSE**

by

Shane P. Muscato
Joey P. Sullivan

December 2015

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**DEATH, TAXES, AND DISASTERS: AFSOF'S UTILITY IN DISASTER
RESPONSE**

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MASTER OF SCIENCE IN DEFENSE ANALYSIS

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ABSTRACT

The United States has participated in overseas humanitarian assistance and disaster relief (HADR) efforts since its inception. Today, the principal government agent responsible for HADR responses is the U.S. Agency for International Development (USAID), which works closely with the U.S. Department of Defense, including Marine, Navy, Air Force, and special operations forces to provide logistical support. Air Force special operations forces (AFSOF) are an especially useful HADR asset, given their speed, organic command and control, and unique mission sets. Despite this, AFSOF is often overlooked as a rapid responder in HADR operations. This thesis investigates the use of AFSOF as a rapid responder through two case studies: the 2004 HADR operation following the earthquake and tsunami in Southeast Asia and the HADR operation following the 2013 super typhoon in the central Philippines. In both cases, AFSOF provided critical support in the hours and days after these disasters, and helped pave the way for more sustained efforts undertaken by other U.S. and international responders over time. To improve AFSOF's capabilities as a HADR force, this thesis recommends creating one set of HADR definitions for the U.S. government, improving AFSOF's and USAID's relationship, and implementing an AFSOF Disaster Response Concept of Operations.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACS	agile combat support
AFSOC	Air Force Special Operations Command
AFSOF	Air Force special operations forces
ARSOF	Army special operations forces
ASD(SO/LIC)	Assistant Secretary of Defense for Special Operations and Low Intensity Conflict
AvFID	aviation foreign internal defense
C2	command and control
CONOPS	concept of operations
CRG	contingency response group
CSF	combined support force
DART	disaster assistance response team
DOD	Department of Defense
DOS	Department of State
FDR	foreign disaster relief
FHA	foreign humanitarian assistance
HADR	humanitarian assistance and disaster relief
HN	host nation
IO	international organization
ISR	intelligence, surveillance, and reconnaissance
JACCE	joint air component coordination element
JFACC	joint force air component commander
JFSOCC	joint force special operations component commander
JHOC	Joint Humanitarian Operations Course
JP	joint publication
JSOAC	joint special operations air component
JSOAC-H	Joint Special Operations Air Component, Haiti
JSOTF-P	Joint Special Operations Task Force, Philippines
JTF	joint task force
MEB	Marine Expeditionary Brigade

MEF	Marine expeditionary force
MEU	Marine expeditionary unit
MHE	materials handling equipment
MISO	military information support operations
MOG	maximum (aircraft) on ground
NGO	nongovernmental organization
OFDA	Office of United States Foreign Disaster Assistance
PS	precision strike
RFI	requests for information
SAM	specialized air mobility
SOC PAC	Special Operations Component, United States Pacific Command
SOF	special operations forces
SOG	special operations group
SOLE	special operations liaison element
TACMEMO	tactical memorandum
TACON	tactical control
TTP	tactics, techniques, and procedures
USAID	United States Agency for International Development
USD(P)	Under Secretary of Defense for Policy
USPACOM	United States Pacific Command
USSOCOM	United States Special Operations Command
UTC	unit type code

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I. INTRODUCTION

A. HUMANITARIAN ASSISTANCE, DISASTER RELIEF, AND THE DOD

In a letter written to Jean-Baptiste Leroy in 1789, Benjamin Franklin proclaimed that nothing is certain except death and taxes.¹ While there is truth to this statement, it is also true that disasters are another certainty that can join the small list of life's guarantees. The United States has a history of providing humanitarian assistance and disaster relief (HADR) to foreign lands dating back to its earliest days as a nation, including relief to Venezuela following an earthquake in 1812, humanitarian support to Cuba combating yellow fever after their 1898 War of Independence with Spain, and assistance to the French government after flooding in 1910.²

Today, the United States responds to these events primarily through the United States Agency for International Development (USAID). As part of this response, the U.S. Department of Defense (DOD) is a critical partner that helps fill gaps in disaster response. The DOD has several organizations that are viable rapid responders for a variety of overseas disasters, particularly Marine expeditionary forces (MEF), Air Force contingency response groups (CRG), and special operations forces (SOF).³

Among these responders, SOF is particularly well suited for HADR missions because it has “the ability to deploy rapidly and operate effectively in austere environments with little or no infrastructure.”⁴ Aviation is especially useful for HADR because of its capability to move people and cargo to just about any location on earth,

¹ Albert Smyth, *The Writings of Benjamin Franklin*, vol. 10 (London: Macmillan, 1907), 69.

² Committee on International Disaster Assistance, *The U.S. Government Foreign Disaster Assistance Program* (Washington, DC: National Academy of Sciences, 1978), 7–8.

³ Daniel Haulman, *Wings of Hope: The United States Air Force and Humanitarian Airlift Operations 1947–1994* (Washington, DC: Air Force History and Museums Program, 1998); A. Timothy Warnock, *Short of War: Major USAF Contingency Operations 1947–1997* (Washington, DC: Air Force History and Museums Program, 2000); United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief: Operation Damayan Support to the Republic of the Philippines after Typhoon Haiyan in November 2013* (Quantico, VA: Marine Corps Center for Lessons Learned, 2014); John Jumper, “Rapidly Deploying Aerospace Power: Lessons from Allied Power,” *Aerospace Power Journal* (Winter 1999).

⁴ Department of Defense, *Support to Foreign Disaster Relief* (GTA 90-01-030) (Washington, DC: Department of Defense, 2011): 10–1; Joint Chiefs of Staff, *Special Operations, Joint Publication 3-05* (Washington, DC: Joint Chiefs of Staff, 2014), III–17.

and Air Force special operations forces (AFSOF) comprise some of the nation's most versatile aviation-based personnel and equipment. Specifically, AFSOF brings to the HADR response a significant level of speed, organic command and control (C2), and unique mission sets (see Appendix A), that make AFSOF ideal to support foreign rapid-onset natural disasters.

However, the U.S. government has not fully used AFSOF as a force for HADR operations. Examples where the U.S. government could have better leveraged AFSOF's capabilities include the 2004 earthquake and tsunami in Southeast Asia, the 2010 earthquake in Haiti, and the 2013 super typhoon in the Philippines. This thesis aims to identify instances where AFSOF can provide the best assistance during a rapid-onset natural disaster HADR operation, how best to prepare AFSOF for these missions, and how to inform AFSOF's military and civilian partners better of its strengths and capabilities for these missions.

B. RESEARCH METHODOLOGY

This thesis draws from academic and policy literature on HADR operations, as well as current military doctrine, and interviews with key military and civilian leaders with HADR experience to summarize the history of the U.S. role in HADR. The research delineates the processes whereby the United States becomes involved in HADR missions, details the challenges in conducting these operations, and finally identifies the areas where DOD and AFSOF, in particular, can provide assistance.

From this summary, the thesis then examines two recent HADR missions: Operation Unified Assistance, which was a multinational response to the December 2004 earthquake and tsunami that affected multiple nations along the Indian Ocean coastline, and Operation Damayan, which provided relief following the 2013 Super Typhoon Haiyan that swept across the central Philippines. In both cases, AFSOF was used to varying degrees of success. These case studies identify how AFSOF's attributes contributed to the HADR missions and provide best practices and lessons learned for future missions.

C. FINDINGS

This thesis identifies whether AFSOF has the ability to fill critical gaps to providing relief, particularly in the first hours and days following a disaster, and if it can create the conditions for larger forces to deploy to austere and devastated regions. Specifically, AFSOF is a force multiplier and provides speed, organic C2, and unique mission sets that may significantly improve the U.S. government's response to rapid-onset foreign disaster relief. Since AFSOF is designed to support short-notice special operations missions, as a dynamic organization, it can easily adapt to specific needs. This makes AFSOF a flexible entity well designed to meet the unpredictable requirements after a disaster strikes. In addition to these attributes, AFSOF maintains relationships around the world with various militaries and governments that prove extremely valuable during disaster responses. These connections can allow AFSOF to bridge gaps early in a HADR response.

Despite AFSOF's inherent HADR capabilities, there are limitations to what AFSOF can accomplish after a disaster strikes. Specifically, AFSOF lacks the ability to sustain long-duration relief efforts. AFSOF's strengths are to provide a rapid responding force that can provide critical capabilities in the immediate hours and days after a disaster strikes and to prepare the way for other DOD and humanitarian organizations to sustain efforts over the long haul.

Finally, AFSOF's limited interaction with USAID and with other DOD rapid responders has affected its ability to apply its unique characteristics during HADR operations. AFSOF lacks a comprehensive understanding of the needs of the humanitarian community and, similarly, the humanitarian community seems to lack a clear understanding of AFSOF capabilities.

To address these problems, the thesis concludes by proposing ways that AFSOF can better prepare for HADR missions and improve interoperability with its U.S. government and DOD partners. Specifically, this thesis provides four recommendations for improving AFSOF's role during HADR operations. First, align DOD's HADR doctrinal definitions with those of USAID. Second, improve DOD and USAID

interoperability. In particular, AFSOF should coordinate with USAID's Office of Civil-Military Cooperation to improve each other's understanding of capabilities. Third, foster a habitual training relationship with the humanitarian community through the conduct of tabletop exercises. Finally, implement the AFSOF Disaster Response Concept of Operations (CONOPS) presented in Appendix B of this thesis.

D. THESIS OUTLINE

The thesis proceeds as follows: Chapter II provides an overview of U.S. HADR operations, including a brief history of U.S. involvement in overseas disasters, the key government organizations responsible for HADR, and the process for U.S. participation in humanitarian crises. Chapter III offers a case study of Operation Unified Assistance and the efforts of AFSOF in Thailand and Indonesia following the December 2004 earthquake and tsunami. Chapter IV investigates Operation Damayan, the relief operation after the 2013 typhoon that battered the central Philippines. Chapter V offers conclusions and provides recommendations for improving AFSOF participation in HADR operations. Appendix A presents the unique mission sets of AFSOF through descriptions of Air Force Special Operations Command's (AFSOC) eight core missions. Lastly, Appendix B presents a CONOPS for future relief efforts. This CONOPS establishes a path to improve future AFSOF HADR participation by identifying steps that should be addressed during a HADR operation.

II. UNITED STATES' HUMANITARIAN ASSISTANCE AND DISASTER RESPONSE

A. INTRODUCTION

In 1957, President Dwight Eisenhower said, “Plans are worthless, but planning is everything. There is a very great distinction because when you are planning for an emergency you must start with this one thing: the very definition of ‘emergency’ is that it is unexpected, therefore it is not going to happen the way you are planning.”⁵ Eisenhower’s quote points to the difficult nature of preparing for the unexpected. Yet, despite this challenge, the U.S. government still needs to take prudent steps aimed at preparing for the unknown of emergencies.

This chapter focuses on the role of the United States in rapid-onset natural disaster relief, specifically to a foreign disaster. It begins by offering a brief history of U.S. HADR operations, along with an overview of U.S. agencies responsible for HADR. The second section delineates the process whereby the United States becomes involved in HADR operations, including the involvement of the U.S. military. The third section details some challenges in conducting HADR operations, and the final section provides a summary and conclusion of the chapter.

We also examine the relationship between USAID and the DOD in HADR operations. Within this relationship, we identify a critical gap in U.S. HADR assistance, specifically the rapid deployment of DOD personnel and resources within the first hours or days of a HADR incident. AFSOF have relevant training, manpower, and equipment to overcome this gap and shorten the response time to alleviate suffering.

⁵ Dwight D. Eisenhower (speech, November 14, 1957), quoted in *Department of Defense: Support to Foreign Disaster Relief* (GTA 90-01-030) (Washington, DC: Department of Defense, 2011): 5–1.

B. UNITED STATES HADR HISTORY AND AGENCIES

The United States has a long history of providing disaster relief to foreign countries that stretches back to the founding of the country.⁶ However, during the early days of the nation's foreign disaster relief efforts, it was typical that the response came from private citizens, not from the government. A 1978 report from the Committee on International Disaster Assistance noted that, after a disaster struck a foreign land, it "was usually followed by public meetings in the United States, sponsored by chambers of commerce, boards of trade, and business firms. At such meetings, speakers pointed out the consequences of the latest disaster and special collections were taken."⁷ Private citizens ensured that foreign populations received the assistance they needed; these actions set the precedent that the people of the United States would provide aid to other countries during times of need.

The earliest recorded foreign disaster relief conducted by the U.S. government occurred in the midst of the War of 1812 against the British. The U.S. Congress authorized sending relief supplies to Venezuela after an earthquake struck the nation in March of the war's first year.⁸ However, even after this authorization, the U.S. government rarely involved itself in HADR operations, relying on the civilian sector to be the primary conduit of aid to disaster areas.

While the U.S. government initially did not take on the bulk of relief work, it did allow the U.S. military to use its unique capabilities that were missing in the civilian sector. During this period, "Congress did allow naval vessels to be used to transport private gifts" when there was no other way to deliver the aid.⁹ This event highlights the beginning of a longstanding relationship among the U.S. government, its military, the humanitarian community, and foreign nations working together to alleviate suffering.

⁶ Committee on International Disaster Assistance, *The U.S. Government Foreign Disaster Assistance Program*, 7.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

Modern HADR policy can trace its roots to the post–World War II European Recovery Program, commonly referred to as the Marshall Plan. The plan, developed in 1947, provided the multitude of Europeans affected by World War II with necessities like food and water, in addition to longer-term plans for redeveloping these countries.¹⁰ The European Recovery Program was an international venture; the many nations involved realized that a peaceful end-state required partnership.¹¹ The plan also aimed to use humanitarian assistance and development aid as a bulwark against the advances of Soviet influences in Western Europe and to curtail the spread of communism.

The Marshall Plan, which lasted from 1948 to 1952, was designed to be conducted in four one-year phases: the first phase was dedicated to providing food and tools to begin the recovery; the next phase focused on economic growth; the third phase aimed to economically integrate Europe with participating countries; and the final phase transitioned to an emphasis on security.¹² The Harriman Committee report on the Marshall Plan summarized its motivations by stating:

There is deeply rooted in the hearts of most Americans . . . a will and a wish to give whatever is possible to those who are in dire need of help. . . . We as a nation, who are enjoying comparative luxury, cannot in good conscience do otherwise. To withhold our aid would be to violate every moral precept associated with our free government and free institutions.¹³

The humanitarian response of the Marshall Plan signified the importance of relief efforts following World War II, and set a precedent for U.S. involvement in HADR down the road.

Building off the success of the Marshall Plan, President John F. Kennedy passed the Foreign Assistance Act in 1961 and, under Executive Order 10973, created USAID.¹⁴

¹⁰ Harry Bayard Price, *The Marshall Plan and its Meaning: An Independent and Unbiased Appraisal of the Entire Record* (Washington, DC: Governmental Affairs Institute, 1955), 4.

¹¹ *Ibid.*, 6.

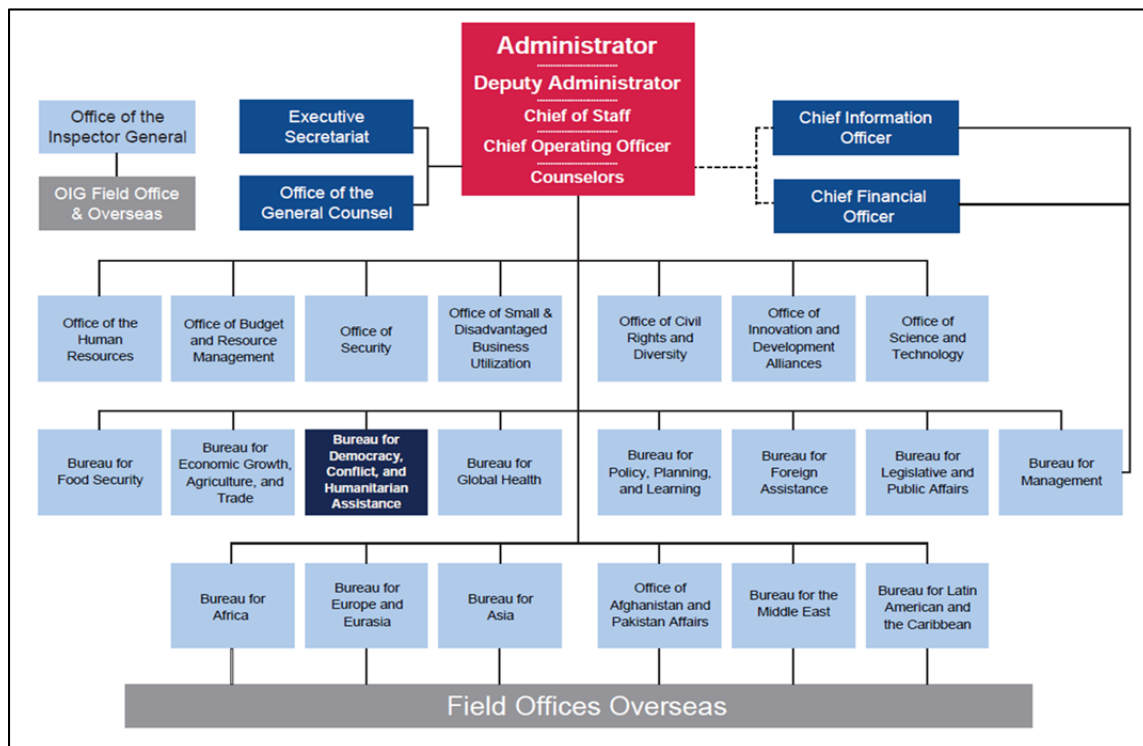
¹² *Ibid.*, 37.

¹³ President's Committee on Foreign Aid, *European Recovery and American Aid* (Washington, 1947), 17–22, quoted in *Harry Bayard Price, The Marshall Plan and Its Meaning* (Washington, DC: Governmental Affairs Institute, 1955), 306.

¹⁴ United States Agency for International Development, “Who We Are.” accessed May 24, 2015, <http://www.usaid.gov/who-we-are/usaid-history>.

With this Executive Order, President Kennedy merged multiple foreign aid entities into a single organization with the goal of improving international development and maintaining this goal as a national objective.¹⁵ USAID became a critical arm of U.S. goodwill and foreign policy during the Cold War, providing not only humanitarian aid but also mentoring and other resources aimed at helping the developing world, which was particularly vulnerable to the spread of communist ideology.¹⁶ Today, USAID is still a single organization with multiple divisions dedicated to the development of foreign nations. See Figure 1.

Figure 1. USAID Organizational Diagram



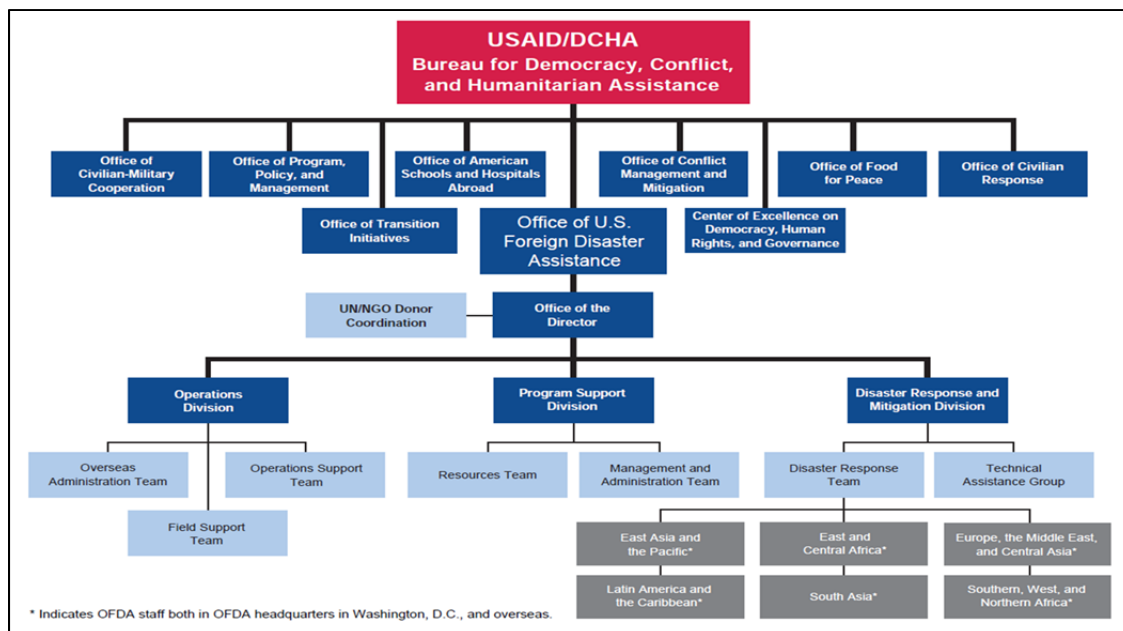
Source: United States Agency for International Development, Office of Foreign Disaster Assistance, *Annual Report for Fiscal Year 2013* (Washington, DC: United States Agency for International Development, 2013), 65.

¹⁵ John F. Kennedy: "Executive Order 10973—Administration of Foreign Assistance and Related Functions," Gerhard Peters and John T. Woolley, The American Presidency Project, November 3, 1961, <http://www.presidency.ucsb.edu/ws/?pid=58911>.

¹⁶ United States Agency for International Development, "Who We Are."

USAID became its own independent federal agency on November 3, 1961, and “although a separate agency from the [Department of State] DOS, it shares certain administrative functions with DOS, and reports to and receives overall foreign policy guidance from the Secretary of State.”¹⁷ USAID’s website describes their role as, “the lead United States Government agency that works to end extreme global poverty and enable resilient, democratic societies to realize their potential.”¹⁸ Within the construct of USAID are multiple bureaus: the Bureau for Democracy, Conflict, and Humanitarian Assistance oversees HADR efforts for the U.S. government with its four primary objectives: prevention, response, recovery, and transition.¹⁹ See Figure 2.

Figure 2. USAID Bureau for Democracy, Conflict, and Humanitarian Assistance



Source: United States Agency for International Development, *Office of Foreign Disaster Assistance: Annual Report for Fiscal Year 2013* (Washington, DC: United States Agency for International Development, 2013), 65.

¹⁷ Joint Chiefs of Staff, *Foreign Humanitarian Assistance*, Joint Publication 3-29 (Washington, DC: Joint Chiefs of Staff, 2014), II-4.

¹⁸ United States Agency for International Development, “What We Do.” accessed February 8, 2015, <http://www.usaid.gov/what-we-do>.

¹⁹ United States Agency for International Development, “Bureau for Democracy, Conflict and Humanitarian Assistance.” accessed February 19, 2015, <http://www.usaid.gov/who-we-are/organization/bureaus/bureau-democracy-conflict-and-humanitarian-assistance>.

Within the Bureau for Democracy, Conflict, and Humanitarian Assistance are two offices of significance for collaborating with the U.S. military for disaster relief operations: the Office of Civilian-Military Cooperation and the Office of United States Foreign Disaster Assistance (OFDA). The Office of Civilian-Military Cooperation has the primary mission of coordinating with the DOD and working on enabling unity of effort. The goal of this office is to “align development and defense and leverage the unique capabilities of both partners to achieve better development outcomes in pursuit of U.S. national security goals and national values.”²⁰ The Office of Civilian-Military Cooperation works toward this goal through coordination at the combatant commands, through liaisons at the Pentagon, and through outreach training.

The DOD uses a tiered approach in coordinating with USAID and establishing the military’s role in foreign humanitarian assistance (FHA), an umbrella term including foreign disaster relief.²¹ The Office of the Secretary of Defense is responsible for overall coordination of policy and funding.²² However, the development of policy is created by the Under Secretary of Defense for Policy (USD(P)): “within USD(P) the Assistant Secretary of Defense (Special Operations and Low-Intensity Conflict) (ASD[SO/LIC]) is responsible for FHA policy and statutory programs with DOD.”²³ This office coordinates with USAID’s Office of Civilian-Military Cooperation. The ASD(SO/LIC) is the primary office of coordination for foreign disasters and is responsible to:

Coordinate DOD [foreign disaster relief] FDR operations with USAID, the Department of State, and other involved Federal departments and agencies; promote FDR collaboration among these departments and agencies. Represent the Secretary of Defense and the USD(P) in discussions on FDR policy, strategy, and operations with other U.S. Departments and agencies, including USAID, and with foreign

²⁰ United States Agency for International Development, “Civilian-Military Cooperation.” accessed June 4, 2015, <http://www.usaid.gov/military>.

²¹ Joint Chiefs of Staff, *Foreign Humanitarian Assistance*, ix.

²² *Ibid.*, II-4.

²³ *Ibid.*, II-5.

governments, international organizations (IOs), non-governmental organizations (NGOs), and members of the private sector.²⁴

In addition to policy, when there is a formal request of the DOD for HADR support, ASD(SO/LIC) validates the need requested by USAID, and identifies the DOD resources available to the HADR operation and competing demands on those resources.²⁵

C. RESPONDING TO A HADR INCIDENT

In order for the United States to participate in a HADR mission, several criteria must be met. First, the affected nation's government must request support via the DOS or be willing to accept assistance. The mobilization officially occurs through a disaster declaration cable, typically between the U.S. Embassy in the affected country and the host nation.²⁶ Additionally, the United States only supports this request when:

The U.S. Ambassador or Chief of mission to the affected country . . . declares a disaster when an event meets the following criteria: The disaster is beyond the ability of the affected country to respond . . . and responding is in the best interest of the United States Government.²⁷

Once a foreign nation makes a request, and it meets the United States' criteria, USAID will begin to take the necessary steps to provide assistance.

Within USAID, OFDA "is responsible for leading and coordinating the United States Government's response."²⁸ OFDA assesses the situation and defines the process of providing relief. After a large-scale disaster, USAID may send a disaster assistance response team (DART) from within OFDA "to coordinate and manage an optimal United States Government response, while working closely with local officials, the international

²⁴ Deputy Secretary of Defense, *Foreign Disaster Relief (FDR)*, DOD Directive 5100.46, Washington, DC: Deputy Secretary of Defense, 2012, 5.

²⁵ Deputy Secretary of Defense, *Foreign Disaster Relief (FDR)*, 5.

²⁶ United States Agency for International Development, *Office of Foreign Disaster Assistance: Annual Report for Fiscal Year 2013* (Washington, DC: United States Agency for International Development, 2013), 67.

²⁷ Ibid.

²⁸ United States Agency for International Development, "Office of Foreign Disaster Assistance." accessed July 23, 2014, <http://www.usaid.gov/who-we-are/organization/bureaus/bureau-democracy-conflict-and-humanitarian-assistance/office-us>.

community, and relief agencies.”²⁹ The DART consists of technical experts who prioritize the flow of humanitarian aid into the region affected. As organizations pour into the disaster area, the DART interfaces with these agencies, controlling the effort, to include operations involving the DOD.

The DOD supports HADR operations under USAID/OFDA’s Humanitarian Coordination and Information Management Sector.³⁰ Depending on the response gaps that exist, OFDA may request DOD assistance when the military can provide a unique service or the civilian response capacity is overwhelmed.³¹

The authorization for the DOD to conduct HADR lies within DOD Directive 5100.46, Foreign Disaster Relief, initially passed in 1964 and most recently re-signed by Deputy Secretary of Defense Ashton Carter on July 6, 2012. The 2012 version of this directive references President William Clinton’s 1995 Executive Order 12966 stating:

The Secretary of Defense shall provide disaster assistance only: (a) at the direction of the President; or (b) with the concurrence of the Secretary of State; or (c) in emergency situations in order to save human lives, where there is not sufficient time to seek the prior initial concurrence of the Secretary of State, in which case the Secretary of Defense shall advise, and seek the concurrence of the Secretary of State as soon as practicable thereafter.³²

This policy enables the DOD immediate response authority when the situation requires unilateral humanitarian assistance—referred to as the “72 hour, life and limb provision.”³³ Using these authorizations and criteria, the DOD provides USAID with a resource to bridge multiple gaps in response time and capability within HADR operations.

²⁹ United States Agency for International Development, “Office of Foreign Disaster Assistance.”

³⁰ United States Agency for International Development, “What We Do.”

³¹ Joint Chiefs of Staff, *Foreign Humanitarian Assistance*, II–7.

³² William Clinton, “Executive Order 12966—Foreign Disaster Assistance,” Gerhard Peters and John T. Woolley, *The American Presidency Project*, July 14, 1995, <http://www.presidency.ucsb.edu/ws/index.php?pid=51625>.

³³ Department of Defense, *Support to Foreign Disaster Relief*, 2–6.

The DOD contains only a few organizations that are capable of bridging both the response and capability gaps in HADR operations. Specifically, MEF, Air Force CRG, and the various elements of SOF—particularly AFSOF—all provide the DOD with rapid-responder options. Each of these organizations brings a unique set of capabilities to HADR missions.

The capabilities of the MEF, and their subordinate element the Marine expeditionary brigade (MEB) or the smaller Marine expeditionary unit (MEU), are particularly useful for HADR missions. The Marine School of Advanced Warfighting defines the MEU, as a force “to provide combatant commanders with a rapid response humanitarian assistance and disaster relief force capable of conducting military-to-military training and civil action . . . and enabling operations in support of the Joint Force.”³⁴ The MEU offers a credible sea-based support structure following a disaster by utilizing “reliable communications, sea/land based transportation, technical repair advice and basic life sustenance of food, water, and shelter.”³⁵ These capabilities make the MEF a primary amphibious responder to crises and viable for operations beyond the littorals. The MEF offers additional capability by staging at sea and not creating an additional burden in the disaster zone. Furthermore, the Marines have equipment, such as the Amphibious Assault Vehicle, that they have used during HADR operations that can conduct recovery operations where many conventional boats are unable.³⁶ The capabilities of the MEF have played vital roles in such HADR missions as Operation Sea Angel in Bangladesh 1991 following a super typhoon, and Operation Unified Response in Haiti in 2010 after their devastating earthquake.³⁷

³⁴ Maria McMillen, “MEU (HA/DR): Shaping the World with Civil Military Engagement” (thesis, United States Marine Corps School of Advanced Warfighting, 2007).

³⁵ Dennis E. Granger, “The Marine Expeditionary Unit: A Limited Conventional Response Force—Not a SOF Substitute” (master’s thesis, Naval War College, 1994).

³⁶ Glenn Goodman, “Developing the Marine Corps’ Amphibious Assault Vehicle Capability After EFV Cancellation,” Defense Media Network, November 14, 2011, <http://www.defensemedianetwork.com/stories/the-marine-corps-aav-and-acv/>.

³⁷ Chris Seiple, “The U.S. Military/NGO Relationship in Humanitarian Interventions” (master’s thesis, Naval Postgraduate School, 1995); U.S. Joint Forces Command, *USSOUTHCOM and JTF-Haiti ... Some Challenges and Considerations in Forming a Joint Task Force* (Suffolk, VA: Joint Center for Operational Analysis, 2010), 13.

The Air Force contingency response wings, first created in 2005, constitutes “a multidisciplinary, cross-functional team whose mission is to provide the first on-scene Air Force forces trained to command, assess, and prepare a base for expeditionary aerospace forces.”³⁸ The Air Force globally stations these groups to help prevent the stovepipe deployment of “engineers, communicators, medics, air field managers, security forces, airlift control elements, and so forth, often in advance of an established joint task force (JTF).”³⁹ The CRGs provide the capability of “a multi-disciplinary team that would work together to be the first on-scene force to take control of an airfield, assess it, and prepare it for expeditionary air forces to arrive and begin to operate.”⁴⁰ CRGs have participated in HADR missions, including the Pakistan earthquake of 2005 and Operation Unified Response in Haiti 2010.⁴¹

In addition to these conventional elements of the DOD, SOF regularly deploy throughout the world as part of HADR missions, “providing medical services . . . and aid to communities devastated by natural disasters.”⁴² SOF lists FHA as one of its core activities in *Joint Publication 3–05*.⁴³ The publication defines foreign humanitarian assistance as “DOD activities conducted outside the United States and its territories to directly relieve or reduce human suffering, disease, hunger or privation.”⁴⁴

SOF capabilities hinge on their austerity, flexibility, and cultural sensitivity, which make them especially useful in HADR situations. Susan Marquis, a senior civilian official in the DOD and a Center for Public Management fellow at the Brookings Institution, contends in general terms that, “The flexibility and ingenuity of SOF have

³⁸ Jumper, “Rapidly Deploying Aerospace Power: Lessons from Allied Power,” 5.

³⁹ Ibid., 4.

⁴⁰ Brian P. Mayer, “Contingency Response Groups: An Analysis of Maintenance Training” (master’s thesis, Air Force Institute of Technology, 2011), 6.

⁴¹ “621st Contingency Response Wing,” July 2, 2013, <http://www.jointbasemdl.af.mil/library/factsheets/factsheet.asp?fsID=3893>.

⁴² Keenan Yoho, Tess deBlanc-Knowles, and Randy Borum, “The Global SOF Network: Posturing Special Operations Forces to Ensure Global Security in the 21st Century,” *Journal of Strategic Security* 7, no. 2 (Summer 2014): 1–2.

⁴³ Joint Chiefs of Staff, *Special Operations*, xi.

⁴⁴ Ibid., II–14.

allowed it to respond in ways that conventional forces cannot because of their size, doctrine, and political implications.”⁴⁵ The USAID Field Operations Guide states that because SOF “are in an unconventional command, are culturally aware . . . the personnel in these units generally tend to be more flexible and creative and less rigid in their thoughts and ideas.”⁴⁶

SOF demonstrated its unique mission capability for HADR in Iraq during Operation Provide Comfort in 1991, along with a USAID DART and multiple NGOs from the humanitarian assistance community.⁴⁷ The operation aimed to provide humanitarian assistance to half a million Kurds isolated in the mountains of northern Iraq, struggling with low temperatures and late winter rains after Operation Desert Storm.⁴⁸ Thomas K. Adams’ account of the operation notes that relief workers were not only impressed with SOF capabilities, but also their cultural sensitivities, such as “drinking tea with the clan leaders.”⁴⁹ Furthermore, Adams contends: “the ability to provide transport was another, and perhaps more important, reason for NGO/military cooperation. Beginning with SOF UH-60 Blackhawks and Air Force [M]C-130 cargo planes . . . the special-operations teams could deliver relief supplies with unmatched speed and efficiency.”⁵⁰

USAID has an understanding of SOF and its capabilities but only on a limited scale. The USAID “Field Operations Guide for Disaster Assessment and Response,” lists just two careers under their SOF section: civil affairs and psychological operations.⁵¹ The

⁴⁵ Susan L. Marquis, *Unconventional Warfare: Rebuilding U.S. Special Operations Forces* (Washington, DC: Brookings Institute Press, 1997), 262.

⁴⁶ United States Agency for International Development, *Field Operations Guide for Disaster Assessment and Response* (Version 4). (Washington, DC: United States Agency for International Development, 2005), F-10.

⁴⁷ Gordon William Rudd, “Operation PROVIDE COMFORT: Humanitarian Intervention in Northern Iraq 1991” (PhD diss., Duke University, 1993).

⁴⁸ Ibid.

⁴⁹ Thomas K. Adams, *U.S. Special Operations Forces in Action: The Challenge of Unconventional Warfare* (Portland, OR: Frank Cass, 1998), 250.

⁵⁰ Ibid. Task Force Alpha included MC-130s and C-130s.

⁵¹ United States Agency for International Development, *Field Operations Guide for Disaster Assessment and Response*, F-10.

guide describes civil affairs as “units in the Army or the Civil Affairs Group in the Marine Corps . . . [whose] function is to provide the interface between the military and the civilian population, organizations, and government.”⁵² Referencing psychological operations, the field guide identifies their likely interface with the DART and psychological operations’ ability to “convey messages and themes intended to have an impact on selected target audiences.”⁵³ There is no mention of the many other special operations forces and their capabilities for HADR missions.

However, the *Special Operations* Joint Publication states “SOF can provide temporary support, such as airspace control for landing zones, communications nodes, security, and advance force assessments to facilitate the deployment of conventional forces and designated humanitarian assistance organizations until the host nation or another organization can provide that support.”⁵⁴ Therefore, one of the first critical gaps between USAID and U.S. SOF is a basic understanding of SOF’s many units and their wide range of capabilities.

The DOD defines AFSOF as “Active and Reserve Component Air Force forces designated by the Secretary of Defense that are specifically organized, trained, and equipped to conduct and support special operations.”⁵⁵ AFSOF covers a wide range of capabilities from, “battlefield air operations, agile combat support, aviation foreign internal defense, information operations/military support operations, precision strike, specialized air mobility; command and control; and intelligence, surveillance and reconnaissance.”⁵⁶ Appendix A describes these capabilities in further detail.

AFSOF brings its own unique resources to HADR missions. Special Operations Doctrine states, “AFSOF supports HADR by employing Command and Control (C2),

⁵² United States Agency for International Development, *Field Operations Guide for Disaster Assessment and Response*, F-10.

⁵³ Ibid.

⁵⁴ Joint Chiefs of Staff, *Special Operations*, II-14.

⁵⁵ Joint Chiefs of Staff, *Department of Defense Dictionary of Military and Associated Terms*, Joint Publication 1-02 (Washington, DC: Joint Chiefs of Staff, 2010 amended through 2015), 7.

⁵⁶ “Mission Statement,” May 26, 2015, <http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104528/air-force-special-operations-command.aspx>.

Specialized Air Mobility, Intelligence, Surveillance, and Reconnaissance (ISR), and Special Tactics core mission areas.”⁵⁷ This broad range of organic capabilities makes it a unique rapid responder. Additionally, doctrine states “AFSOF routinely operate closely with other governmental agencies, intergovernmental organizations, nongovernmental organizations, and other nations’ forces.”⁵⁸ Special Operations Doctrine further argues that AFSOF “provides the capability to rapidly respond to crises of limited scale . . . these operations occurred during the United States’ responses after devastating earthquakes in Haiti and Japan.”⁵⁹

Analysis of AFSOF’s involvement in HADR tends to focus on its rapid-responder attributes: speed, C2, and its unique mission sets (see Appendix A). However, Major Philip Laughlin notes that AFSOF is “uniquely qualified to conduct initial response actions supporting HADR because of its distributed geographical orientation and the ability to deploy independently to conduct operations in austere environments with a small operational footprint.”⁶⁰ Furthermore, since AFSOF supports short notice special operations missions, it is a dynamic organization designed and rebuilt according to mission need within the confines of regulatory guidance.

D. CHALLENGES TO INTERAGENCY HADR

Despite the delineation of tasks and responsibilities between U.S. civilian agencies and the DOD, there are considerable challenges for coordinating efforts in HADR missions. One challenge is definitions. USAID has created a detailed list of definitions of HADR events and missions aimed at providing a common framework for

⁵⁷ Curtis E. LeMay Center for Doctrine Development and Education, *Annex 3-05 Special Operations* (Montgomery, AL: Curtis E. LeMay Center for Doctrine Development and Education), 14, last updated January 23, 2015, <https://doctrine.af.mil/DTM/dtmspecialops.htm>.

⁵⁸ Curtis E. LeMay Center for Doctrine Development and Education, *Annex 3-05 Special Operations*, 2.

⁵⁹ *Ibid.*, 9.

⁶⁰ Phillip A. Laughlin, “Relief from the Sky: Optimizing U.S. Air Force Special Operations Disaster Relief” (master’s thesis, Air Command and Staff College, 2013), 2.

understanding the HADR process.⁶¹ USAID defines preparedness as “activities undertaken in advance to ensure effective response to the impact of disasters.”⁶² This is an important concept that USAID includes in its approach to humanitarian assistance. The DOD, on the other hand, has capabilities that it can lend to HADR situations, but does not have a dedicated preparedness definition to establish disaster response plans.

USAID further divides disasters into two categories: natural disasters and complex emergencies. They describe natural disasters as “earthquakes, hurricanes, droughts, etc., and are not initiated by or involved in human conflict.”⁶³ By contrast, “complex emergencies are situations that develop because of or during a human conflict.”⁶⁴ This distinction results in USAID responding to and addressing disasters not as a generic response but rather based on the specifics of a natural disaster or the intricacies that may be involved in dealing with a complex situation. The DOD, by contrast, defines a foreign disaster as, “A calamitous situation or event that occurs naturally or through human activities, which threatens or inflicts human suffering on a scale that may warrant emergency relief assistance from the U.S. Government or from foreign partners.”⁶⁵ The key difference between USAID and DOD’s definition of disasters is the delineation of natural disasters versus complex emergencies; USAID separates the terms while the DOD merges them into a singular definition.

USAID and the DOD have additional differences in how they define humanitarian assistance and disaster relief. According to USAID, humanitarian assistance is, “generally considered emergency assistance in life-saving relief efforts.”⁶⁶ Furthermore, USAID defines disaster relief as, “immediate, life sustaining assistance provided to

⁶¹ Bureau for Policy and Program Coordination (USAID), *U.S. Foreign Aid: Meeting the Challenges of the Twenty-First Century* (PD-ABZ-322) (Washington, DC: United States Agency for International Development, 2004), 20.

⁶² United States Agency for International Development, *Field Operations Guide for Disaster Assessment and Response*, V-6.

⁶³ *Ibid.*, F-2.

⁶⁴ *Ibid.*

⁶⁵ Joint Chiefs of Staff, *Department of Defense Dictionary of Military and Associated Terms*, 93.

⁶⁶ United States Agency for International Development, *Joint Humanitarian Operations Course (JHOC) Workbook* (Washington, DC: United States Agency for International Development, 2014), 14.

disaster victims.”⁶⁷ Combining these terms produces an overall USAID definition of HADR as emergency life sustaining relief efforts to disaster victims. By contrast, the DOD sees humanitarian assistance as activities conducted “to relieve or reduce human suffering, disease, hunger, or privation” and may “include activities along the relief to development spectrum.”⁶⁸ The DOD concept of disaster relief, or foreign disaster relief, is immediate assistance to alleviate disaster victims suffering.⁶⁹ DOD Directive 5100.46 further describes foreign disaster relief as including, “services and commodities as well as the rescue and evacuation of victims; the provision and transportation of food, water, clothing, medicines, beds, and bedding, temporary shelter, the furnishing of medical equipment, medical and technical personnel; and making repairs to essential services.”⁷⁰

The key difference between the USAID and DOD understanding of HADR is that the DOD provides development assistance after relief operations, while USAID focuses on an immediate response for relief operations; USAID’s definition does not address the development or recovery phases after the disaster. Rather, USAID separates the recovery process from HADR operations because it goes beyond immediate disaster relief.

Overall, these differences in definitions create problems when trying to coordinate HADR operations across agencies. The operations conducted during HADR require similar coordination to that of state-building. Ghani, Lockhart, and Carnahan, writing on state building, highlight that a lack of consensus “makes coordination a major challenge, each organization . . . has its own distinctive culture, incentives and rules of operation.”⁷¹ These differences may inhibit coordination in an environment requiring smooth collaboration to meet the mission of saving lives and alleviating suffering.

⁶⁷ United States Agency for International Development, *ADS Chapter 251: International Disaster Assistance* (Washington, DC: United States Agency for International Development, Partial revision date February 13, 2012, Document quality check date February 26, 2013), 10.

⁶⁸ United States Agency for International Development, *Joint Humanitarian Operations Course (JHOC) Workbook*, 14.

⁶⁹ Joint Chiefs of Staff, *Foreign Humanitarian Assistance*, GL–7.

⁷⁰ Deputy Secretary of Defense, *Foreign Disaster Relief (FDR)*, 10.

⁷¹ Ashraf Ghani, Clare Lockhart, Michael Carnahan, *Closing the Sovereignty Gap: An Approach to State-Building* (Working Paper 253) (London: Overseas Development Institute, 2005), 11.

Another challenge between USAID and DOD is interoperability. A RAND report defines interoperability as “The ability of systems, units, or forces to provide services to and accept services from other systems, units, or forces, and to use the services so exchanged to enable them to operate effectively together.”⁷² Andrew Natsios, former Administrator of USAID, stated in regard to the humanitarian community versus DOD in HADR that “Lines of authority are confused and vague: the system works because of personal relationships, a notion foreign to the military, where the system works because of discipline, training, organization, and doctrine.”⁷³

Addressing the challenge to improve interoperability is difficult primarily because of the different cultures of the DOD and USAID. For example, another RAND study suggests that the DOD’s centralized organization does not integrate effectively with the usually decentralized organizational structures of the civilian agencies and non-governmental organizations.⁷⁴ These cultures have limited opportunities to train together and then they arrive in dynamic environments requiring immediate understanding of each other’s abilities. HADR expert Arjun Katoch contends, “Dealing with such a situation in a major disaster requires professional, experienced, rapid-deployment teams working in support of the national and local government to quickly establish a coordination and information management system.”⁷⁵ This notion brings to focus that, in addition to speed and organic capabilities; interoperability is a critical variable to overcoming the challenges of rapid-onset foreign disaster relief. HADR interagency coordination is depicted in Figure 3.

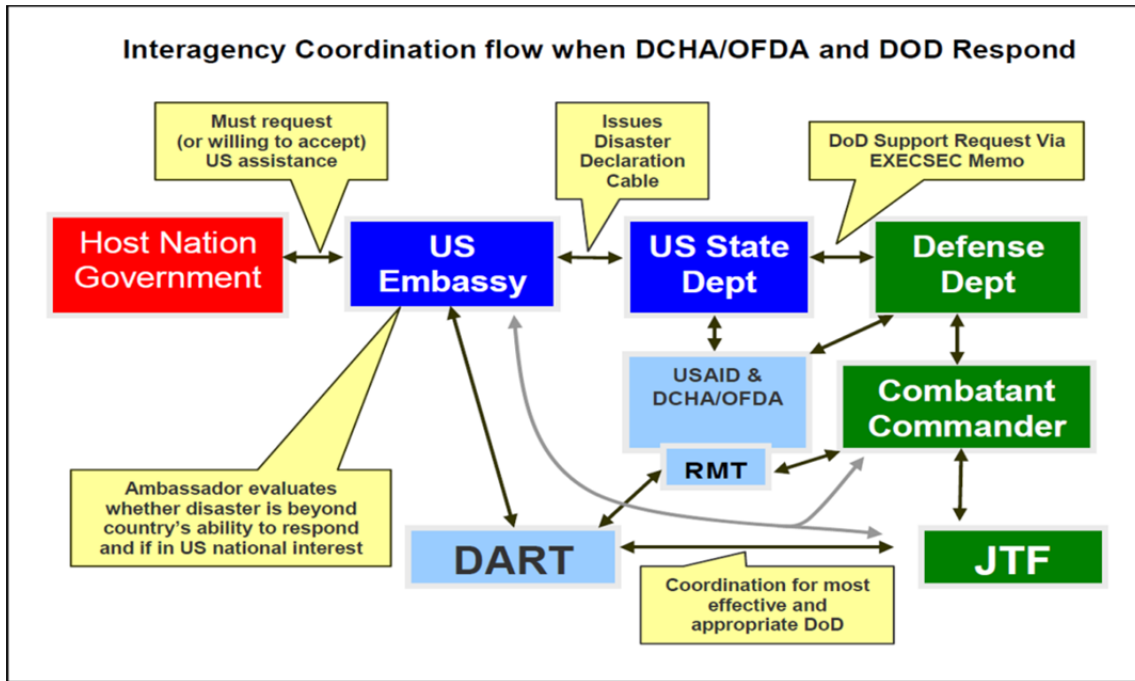
⁷² Myron Hura et al., *Interoperability: A Continuing Challenge in Coalition Air Operations* (MR-1235-AF) (Santa Monica, CA: RAND Corporation, 2000), 8.

⁷³ Andrew Natsios, *U.S. Foreign Policy and the Four Horsemen of the Apocalypse: Humanitarian Relief in Complex Emergencies* (Westport, CT: Praeger Publishers, 1997), 113.

⁷⁴ Daniel Byman et al., *Strengthening the Partnership: Improving Military Coordination with Relief Agencies and Allies in Humanitarian Operations* (MR-1185-AF) (Santa Monica, CA: RAND Corporation, 2000), xvii.

⁷⁵ Arjun Katoch, “The Responder’s Cauldron: The Uniqueness of International Disaster Response,” *Journal of International Affairs* 59, no. 2 (Spring/Summer 2006): 161.

Figure 3. HADR Interagency Coordination



Source: Wm. Phillip Wilhelm, "USAID and DOD Roles in Foreign Disaster Response" (handout, United States Agency for International Development, 2007).

E. CONCLUSION

The United States has a long and storied history of providing aid to countries around the world that have been devastated by natural disasters. Today, this plays a significant part of U.S. foreign policy. Based on the strength of civilian organizations and the characteristics of the military that supports them, the United States has a range of capabilities to assist nations requesting aid. However, a lack of common definitions, understanding of mission sets, and poor interoperability may impose limitations on the ability to provide efficient and effective relief. If these factors are not addressed, the mission of saving lives and alleviating suffering may fail. AFSOF is a force multiplier in this equation that provides speed, organic C2, and unique mission sets that may significantly improve the government's response to rapid-onset foreign disaster relief. The following chapter begins the analysis of the utility of AFSOF during these operations through the lens of Operation Unified Assistance, the disaster relief response to the December 26, 2004 tsunami in the Indian Ocean off the coast of Indonesia.

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III. OPERATION UNIFIED ASSISTANCE

A. INTRODUCTION

On December 26, 2004, a 9.3 magnitude earthquake struck within the depths of the Indian Ocean approximately 160 kilometers off the west coast of Northern Sumatra, Indonesia.⁷⁶ The earthquake, the most powerful in more than 40 years, displaced massive volumes of water and started the deadliest tsunami in recorded history.⁷⁷ See Figure 4.

Figure 4. Location of Earthquake



Source: "India Commissions Tsunami Early Warning Center," October 16, 2007, <http://www.marinebuzz.com/2007/10/16/india-commissions-tsunami-early-warning-center/>.

⁷⁶ David Deptula, *Operation Unified Assistance (OUA): CSF-536 Joint Force Air Component Commander (JFACC)/Air Force Forces Commander (AFFOR) Lessons and Observations*, JFACC/COMAFFOR Lessons Collection Team (Joint Base Pearl Harbor-Hickam, HI: The Office of Air Force Lessons Learned, 2005), 3.

⁷⁷ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005* (Washington, DC: United States Agency for International Development, 2005), 15.

The tsunami's destructive waves travelled more than 3,000 miles within six hours. Rhoda Margesson, a specialist in international humanitarian policy, describes the waves as, "a trail of death and destruction as they arrived on land."⁷⁸

An estimated 5,000,000 people region-wide experienced the effects of the disaster, especially in Indonesia, Sri Lanka, India, and Thailand.⁷⁹ Margesson depicts the resulting destruction: "In many places the physical environment is badly damaged or destroyed, including entire communities, homes, businesses, tourist areas, and infrastructure (roads, bridges, power and telephone systems, and public buildings). For many their means of livelihood and way of life has been wiped out. In the hardest hit areas, social services are severely compromised or nonexistent."⁸⁰ The Administrator of USAID at the time, Andrew Natsios, further added:

I think we think of this as a tsunami. It was actually two events, an earthquake and then a tsunami. The earthquake is the fourth worst in recorded history. So, if there had been no tsunami, we still would have had widespread damage to the infrastructure in Aceh. In fact, 70 percent of the bridges in the interior of the island that were unaffected by the tsunami were destroyed by the earthquake.⁸¹

Indonesia was the closest country to the epicenter of the earthquake and suffered the highest death toll, as well as the most damage to infrastructure; USAID estimated over 150,000 people dead or missing on the island of Sumatra alone.⁸² In less than an hour, the earthquake crippled the country placing more than half a million people in need of "emergency, lifesaving assistance."⁸³ In Sumatra, approximately 40 percent of

⁷⁸ Rhoda Margesson, *Indian Ocean Earthquake and Tsunami: Humanitarian Assistance and Relief Operations* (CRS Report No. RL32715) (Washington, DC: Congressional Research Service, 2005), 1.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ *Tsunami Response: Lessons Learned: Hearing Before the Committee on Foreign Relations United States Senate*, 109th Cong., 1 (2005) (statement of Andrew Natsios, Administrator of USAID).

⁸² United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 18.

⁸³ Ibid.

municipal employees died because of the disaster, which destroyed 70 percent of Banda Aceh's health facilities.⁸⁴

Thailand suffered more from the tsunami's devastating waves rather than from the earthquake itself. The provinces of Ranong, Phang-Nga, Phuket, Krabi, Trang, and Satun were the hardest hit with more than 8,000 people confirmed dead in the immediate aftermath and tens of thousands of people stranded or displaced.⁸⁵ While most of its infrastructure was intact, Thailand required the delivery of emergency relief supplies and mortuary services to its hardest hit regions.⁸⁶ As a result, the U.S. Ambassador to Thailand, Darryl Johnson, declared Thailand a disaster area on December 27, 2004 paving the way for the United States to provide HADR responders.⁸⁷

Although multiple countries felt the impact of this horrific disaster, the DOD limited its support operations to Thailand, Indonesia, and Sri Lanka in what became known as Operation Unified Assistance.⁸⁸ Within this DOD operation, the MEF and Air Force CRG supported relief efforts in Thailand, Indonesia, and Sri Lanka, while AFSOF supported relief efforts in Thailand and Indonesia.

This chapter investigates the role that AFSOF played in providing HADR to Thailand and Indonesia following the 2004 earthquake and tsunami. The first section outlines the U.S. government's response to the disaster up until AFSOF's redeployment. The second section details AFSOF's best practices and lessons learned from its HADR operation, while the last section summarizes the case study. Ultimately, AFSOF demonstrated its rapid-responder capability in Operation Unified Assistance through its speed, organic C2, unique mission sets (see Appendix A), and relationships.

⁸⁴ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 18.

⁸⁵ *Ibid.*, 25.

⁸⁶ *Ibid.*

⁸⁷ *Ibid.*

⁸⁸ Deptula, *Operation Unified Assistance (OUA)*, 1.

B. U.S. GOVERNMENT RESPONSE

On December 27, the same day as the disaster declaration, U. S. Secretary of State Colin Powell pledged an initial \$15 million in relief aid.⁸⁹ Despite the limited information available, early USAID reports to the Department of State made it clear that DOD support was required; the Department of State quickly made the request and the DOD began preparing for the deployment of HADR responders.⁹⁰

The day after the earthquake hit, United States Pacific Command (USPACOM) released an execution order and directed the standup of Joint Task Force (JTF)-536, in the vicinity of Utapao, Thailand.⁹¹ The USPACOM Mission Statement stated, “USPACOM provides assistance to the governments of Indonesia, Sri Lanka, Thailand and other affected nations to mitigate the effects of the recent earthquake and tsunami in the Indian Ocean. Conduct of operations is in support of U.S. government lead agency, and in coordination with international organizations, non-governmental organizations and partner nations.”⁹² This order authorized the U.S. Marine Corps Forces Pacific Commander to start deploying in order to activate the JTF, as well as deploy assessment teams to Thailand, Indonesia, and Sri Lanka.⁹³ The U.S. Pacific Air Forces ordered the deployment of five Air Force C-130s to Utapao, which it later increased to eight, to provide airlift support.⁹⁴ Additionally, Special Operations Component, United States Pacific Command (SOCPAC) ordered the 353rd Special Operations Group (SOG) to begin AFSOF preparations to support the JTF.⁹⁵

⁸⁹ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 16.

⁹⁰ Eric Shaw, *Operation Unified Assistance: 2004 Sumatran Earthquake and Tsunami Humanitarian Relief* (Newport, RI: The United States Naval War College, Joint Military Operations Department, 2013), 11.

⁹¹ Deptula, *Operation Unified Assistance (OUA)*, 46.

⁹² Shaw, *Operation Unified Assistance*, 12.

⁹³ Deptula, *Operation Unified Assistance (OUA)*, 46.

⁹⁴ Ibid.

⁹⁵ David Mobley, in discussion with authors, June 24, 2015.

The following day, December 28, just over 48 hours after the earthquake hit, USPACOM issued multiple deployment orders to DOD forces.⁹⁶ Major General David A. Deptula reflected on Operation Unified Assistance, stating, “USPACOM was focused on determining the extent of damage, level of support required, and the command’s capacity to support Asia tsunami disaster relief efforts.”⁹⁷ The SOCPAC Commander ordered the 353 SOG to deploy AFSOF MC-130s to Utapao; however, the 353 SOG would later change its destination in-flight to Bangkok.⁹⁸ Just over eight hours after USPACOM’s initial deployment orders, the DOD assigned the III MEF Commander as the overall Commanding General and established JTF-536.⁹⁹ Two hours later, Navy aircraft began arriving at Utapao Royal Thai Navy Airfield.¹⁰⁰ Later the same day, three Air Force KC-135s delivered JTF-536’s forward command element to Utapao and the AFSOF command and control element to their new location of Don Mueang Royal Thai Air Force Base in Bangkok, Thailand.¹⁰¹

On December 29, as the media released growing estimates of dead and missing, President George W. Bush increased U.S. aid assistance from \$15M to \$35M.¹⁰² That same day, the first USAID DART arrived in Bangkok, beginning an overall deployment of 14 DARTs with a total of 55 members and an additional 100-plus field-based support staff.¹⁰³ In addition to the USAID DART, three DOD JTF-536 disaster relief assessment teams arrived in Thailand to assist in the DOD evaluation of the situation.¹⁰⁴ USPACOM’s initial priorities “focused on determining the extent of the damage, level of

⁹⁶ Deptula, *Operation Unified Assistance (OUA)*, 46.

⁹⁷ Ibid., 47.

⁹⁸ Ibid., 46.

⁹⁹ Ibid., 47.

¹⁰⁰ Ibid.

¹⁰¹ Shaw, *Operation Unified Assistance*, vii; Richard Morris, *With Compassion and Hope: The Story of Operation Unified Assistance* (Hickam Air Force Base, HI: Pacific Air Forces Office of History, 2006), 74.

¹⁰² Shaw, *Operation Unified Assistance*, vii.

¹⁰³ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 17; Shaw, *Operation Unified Assistance*, 11.

¹⁰⁴ Shaw, *Operation Unified Assistance*, vii.

support required, and the command's capacity to support Asia tsunami disaster relief efforts.”¹⁰⁵ Also on December 29, USPACOM updated their priorities to “damage assessment and posturing all available theater airlift assets to provide support.”¹⁰⁶ With this change in mission, both the *Lincoln* Carrier Strike Group and the *Bonhomme Richard* Expeditionary Strike Group deployed toward the area of operations to provide JTF-536 support.¹⁰⁷

While conventional units were moving into position, two AFSOF MC-130s began flying relief missions within Thailand just three days after the disaster struck and nearly two days before conventional Air Force units would start flying missions.¹⁰⁸ On the first day of AFSOF flights, the MC-130s moved 13 casualty evacuation victims, 1,400 body bags for the dead, and 48,200 pounds of relief supplies. Furthermore, AFSOF MC-130s were the first U.S. aircraft to arrive at Phuket International Airport and opened the Krabi Airport in Thailand for further relief operations.¹⁰⁹ These new airfields not only brought relief into previously unreachable areas, but they also provided direct support to both USPACOM and Pacific Air Forces hub-and-spoke strategy to move relief supplies to outlying airfields and people in need.¹¹⁰

On December 30, “Indonesia authorized JTF-536 overflight of Indonesian airspace for two weeks in support of humanitarian assistance and disaster relief operations,” including the possibility of further extensions.¹¹¹ On that same day, the JTF-536 disaster relief assessment teams arrived in Sri Lanka and Indonesia.¹¹² Despite international militaries and civilian organizations already operating at both Banda Aceh

¹⁰⁵ Deptula, *Operation Unified Assistance (OUA)*, ix.

¹⁰⁶ Ibid., 48.

¹⁰⁷ Shaw, *Operation Unified Assistance*, vii.

¹⁰⁸ Mobley, in discussion with authors.

¹⁰⁹ Ibid.

¹¹⁰ Morris, *With Compassion and Hope*, 15.

¹¹¹ Deptula, *Operation Unified Assistance (OUA)*, xiv.

¹¹² Shaw, *Operation Unified Assistance*, vii.

and Medan, Indonesia, USPACOM made landing a C-130 at Banda Aceh its top priority.¹¹³

That same day, members of the 613th CRG arrived in Colombo, Sri Lanka; Utapao, Thailand; and Bangkok, Thailand.¹¹⁴ The CRG commander assigned four members of the 613th CRG to support AFSOF aircraft security.¹¹⁵ At this time, AFSOF already had four MC-130s flying relief missions out of Bangkok, while the Royal Thai Air Force's official request for U.S. support in Bangkok continued to work through the reporting process.¹¹⁶

On New Year's Eve, President Bush increased the pledge of aid from \$35M to \$350M in support of ongoing disaster relief.¹¹⁷ At this time, six of the eight conventional Air Force C-130s were flying relief missions in Thailand. Simultaneously, AFSOF opened up two additional airfields in Trang and Ranong, Thailand.¹¹⁸ Just five days after the disaster, four of the six worst hit provinces had JTF-536 airlift operations flying relief missions to them.¹¹⁹ The JTF-536 disaster relief assessment team reported that, "the air bridge between Bangkok/Utapao and Phuket/Krabi was growing stronger and the JTF was exceeding Thai requirements for the delivery of relief supplies."¹²⁰

Simultaneously, in Indonesia, an inter-military cooperation meeting between the DOD and the Indonesian military created a plan for airlift operations into the country; this plan included coordination between United States operations and ongoing Australian operations in Aceh province.¹²¹ Recognizing the versatility of airlift support, JTF-536

¹¹³ Deptula, *Operation Unified Assistance (OUA)*, 48.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

¹¹⁶ David Mobley, in discussion with authors, June 24, 2015; Deptula, *Operation Unified Assistance (OUA)*, 49.

¹¹⁷ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 16.

¹¹⁸ Deptula, *Operation Unified Assistance (OUA)*, 50; Mobley, in discussion with authors.

¹¹⁹ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 25.

¹²⁰ Deptula, *Operation Unified Assistance (OUA)*, 50.

¹²¹ Ibid., 51.

requested an Air Force ramp control team deploy to Medan, Indonesia, to support future airlift operations.¹²² SOCPAC also modified the AFSOF deployment order, omitting any specific deployment location in preparation for AFSOF's move anywhere in the region to best facilitate support to operations in Indonesia.¹²³

On New Year's Day, the *Lincoln* Carrier Strike Group arrived off the west coast of Aceh, Indonesia, three days after receiving direction to support the disaster relief mission. The *Lincoln* began flying helicopter relief sorties into Banda Aceh airfield that same day.¹²⁴ Simultaneously, Air Force C-130s began flying missions from Utapao to Banda Aceh and Medan. AFSOF also began to focus on Indonesia operations as it flew its final missions within Thailand and began preparations to relocate to Langkawi, Malaysia.¹²⁵ This transition ended the AFSOF mission in Thailand that included efforts from specialized mobility, logistics, and special tactics. The 353 SOG Commander described AFSOF operations in Thailand as, "a beacon for others to guide on."¹²⁶ Ultimately, AFSOF transported 234,000 pounds of aid, 32 casualty evacuations, and 155 relief workers and opened three airfields in Thailand.¹²⁷

On January 2, AFSOF established its headquarters in Langkawi, Malaysia (the U.S. Defense Attaché in Malaysia coordinated for AFSOF to base in Langkawi).¹²⁸ Upon arrival the 353 SOG Commander assumed duties as the joint forces special operations component commander (JFSOCC) and provided a joint HADR mission statement to "Conduct integrated air operations and enable activities in support of JTF-536 HADR objectives in the Indonesian joint area of operations."¹²⁹ Additionally, the JFSOCC released a desired end state: "Assigned HADR operations handed over to designated

¹²² Deptula, *Operation Unified Assistance (OUA)*, 50.

¹²³ Ibid., 49.

¹²⁴ Ibid., 52.

¹²⁵ Morris, *With Compassion and Hope*, 83.

¹²⁶ "CSF-536 JFSOC: AAR Quicklook," PowerPoint presentation dated October 12, 2005 used by the USAF Special Operations School, given to authors by Maj Gen Brozenick (Ret.) via disk on June 25, 2015.

¹²⁷ Ibid.

¹²⁸ Norman Brozenick, in discussion with authors, June 25, 2015.

¹²⁹ "CSF-536 JFSOC: AAR Quicklook."

United States, international governmental organizations, non-governmental organizations, private voluntary organization, and/or host nation forces.”¹³⁰ More specifically, the goal of the JFSOCC was to provide specialized SOF capabilities, to include identifying new airfields, forward air refueling points, bridge gaps, and turn over missions as soon as practical to agencies capable of meeting the need. In addition to four AFSOF MC-130s, the JFSOCC added an AFSOF “slick” C-130—a basic C-130 without specialized equipment—for increased airlift capability along with two special operations medical teams for an increased casualty evacuation capability.¹³¹

On January 3, JTF-536 was re-designated as Combined Support Force (CSF)-536 and the disaster relief assessment teams became combined support groups to reflect the now multinational cooperation effort.¹³² This date also marked the arrival of the *Bonhomme Richard* Expeditionary Strike Group in Indonesia to begin its relief mission.¹³³ AFSOF also began flying operations into Indonesia that same day; the first operations included missions into Medan and Banda Aceh.¹³⁴ AFSOF MC-130s, specifically trained in flying in “blackout” night operations, flew during the period of darkness while the conventional C-130s flew daylight operations; this effectively provided JTF-536 with a 24-hour airlift capability into Banda Aceh and Medan. In addition to airlift, AFSOF deployed a two-man special tactics team into Medan and a seven-man special tactics team into Banda Aceh to assist with host nation aircraft flow and ramp operations.¹³⁵ On two different occasions, the JFSOCC infused U.S. Army SOF (ARSOF) teams in Banda Aceh to facilitate coordination between international relief entities and the Indonesian military.¹³⁶ The Indonesian government prevented the ARSOF teams from leaving the airfield due to concerns about perceptions with the local

¹³⁰ “CSF-536 JFSOC: AAR Quicklook.”

¹³¹ Deptula, *Operation Unified Assistance (OUA)*, 54; Brozenick, in discussion with authors.

¹³² Shaw, *Operation Unified Assistance*, 29. For the purpose of simplicity, this thesis continues to use the term JTF-536 despite the re-designation to a CSF.

¹³³ Ibid., vii.

¹³⁴ Brozenick, in discussion with authors.

¹³⁵ Ibid. In the case of the seven-man special tactics team in Banda Aceh, it was largely comprised of aerial delivery support branch personnel. Richard Samuels, e-mail message to authors, October 29, 2015.

¹³⁶ Brozenick, in discussion with authors.

population and Aceh province security; the JFSOCC ultimately withdrew the ARSOF teams and redeployed them to home station.¹³⁷

The following day, January 4, the JTF-536 Air Component Coordination Element and JFSOCC coordinated to assess Maimun Saleh airfield, on Sabang Island ten miles north of Banda Aceh, and a drop zone in Meulobah the capital of Aceh.¹³⁸ An AFSOF MC-130 completed a daylight survey and conducted a successful landing at Maimun Saleh airfield proving its viability.¹³⁹ As assessors within Indonesia continued to identify ways to improve efficiency, additional Air Force strategic lift assets began flying inter-theater airlift from basing locations outside the area of operations.¹⁴⁰

Beginning on January 5, the JFSOCC reported the presence of increased relief aircraft in the area creating significant delays due to aircraft congestion at both Banda Aceh and Medan. The JFSOCC recommended an effective airspace management system, increasing the number of forward operating bases, and improving materials handling equipment.¹⁴¹ Furthermore, he recommended opening aerial ports of debarkation in Malaysia and using the recently surveyed Maimun Saleh airfield.¹⁴²

The next day, USPACOM officially released the Executive Order for Operation Unified Assistance: “The purpose of this operation is to provide immediate life sustaining support to devastated areas of Indonesia, Sri Lanka, and Thailand to minimize loss of life and mitigate human suffering.”¹⁴³ Furthermore, USPACOM issued an end state: “Success is defined as the loss of life and human suffering of displaced persons minimized, the scope of the crisis no longer exceeds the capacity of the host nations, and all U.S. personnel are redeployed to home station or as ordered.”¹⁴⁴ To assist in meeting

¹³⁷ Brozenick, in discussion with authors.

¹³⁸ Morris, *With Compassion and Hope*, 88.

¹³⁹ Ibid.

¹⁴⁰ Deptula, *Operation Unified Assistance (OUA)*, 54.

¹⁴¹ Morris, *With Compassion and Hope*, 92.

¹⁴² Brozenick, in discussion with authors; Morris, *With Compassion and Hope*, 92.

¹⁴³ Shaw, *Operation Unified Assistance*, A-4.

¹⁴⁴ Ibid.

this end state, the U.S. Naval Ships *Mercy* and *Essex*—two medical ships—were deployed to support JTF-536 operations on January 8; the *Essex* arrived on January 18 and the *Mercy* on February 3.¹⁴⁵

On January 9, relief supplies for operations at Banda Aceh began to exceed the capacity of AFSOF special tactics controllers, who were further hindered by heavy rains. The JFSOCC, in a situational report, recommended standing down operations until conditions improved: “The air traffic control, airfield, and ramp situation at Banda Aceh is untenable. No single authority controls the variety of international and military organizations operating at the field.”¹⁴⁶ The joint force air component commander (JFACC) temporarily suspended all night flights into Banda Aceh pending improved weather and additional augmentation as a result of this recommendation. The next morning, a seven-member Air Force aerial port team arrived and, on January 11, AFSOF special tactics controllers handed-off of airfield support in Banda Aceh. On January 12, following improved weather, AFSOF MC-130s resumed night operations.

Over the next few days, the JTF-536 made significant headway in their airlift operation. The Indonesian armed forces commander authorized JTF-536 to fly operations into Maimun Saleh airfield. Despite the approval, the JFACC sent another assessment team to Maimun Saleh airfield delaying operations into the airfield for a few days. On January 13, a nine-person aerial port team arrived in Medan to takeover ramp operations from the last special tactics team forward deployed. By January 14, conventional and AFSOF airlift were able to maximize relief efforts and cargo throughput into Indonesia.¹⁴⁷

On January 15, the JFACC received tactical control of all JTF-536 aircraft, except those organic to the *Lincoln* Carrier Strike Group and the U.S. Ship *Essex*.¹⁴⁸ The JFACC viewed integrating airlift under a single commander as key for unity of effort and

¹⁴⁵ Shaw, *Operation Unified Assistance*, vii.

¹⁴⁶ Morris, *With Compassion and Hope*, 99.

¹⁴⁷ Deptula, *Operation Unified Assistance (OUA)*, 9.

¹⁴⁸ *Ibid.*, 59.

doctrinally sound, however it came 21 days into the overall 47-day relief operation.¹⁴⁹ That same day, Deputy Secretary of Defense Paul Wolfowitz stated, “We are working with the Indonesian Government to look at how we move from the stage of immediate relief to the longer-term challenge of reconstruction. And it’s important from our point of view since the resources that are committed to this task from the U.S. military are resources that have to go somewhere else.”¹⁵⁰ In response to the U.S. transition to reconstruction, the World Food Program, USAID, and United Nations logistics representatives discontinued the movement of HADR supplies in support of JTF-536, except those already purchased or *en route*.¹⁵¹ AFSOF began redeploying forces to their home station in Japan, while the JFACC coordinated for airlift to backfill AFSOF in Langkawi.¹⁵²

The combined support group commanders of both Thailand and Sri Lanka reported, “mission accomplished” on January 17 and turned their focus to the redeployment of forces over the next two weeks.¹⁵³ JTF-536 issued a Transition and Redeployment Plan on January 18, and the JFSOCC redeployed all of his forces including all AFSOF elements handing over control of his operations and command centers to the conventional Air Force representatives in Langkawi.¹⁵⁴ The Pacific Air Forces Special Study “With Compassion and Hope,” quoted the deputy JFSOCC commander as saying, “We are first responders. We are meant to go in early, help them setup that infrastructure, then leave. If they need our expertise, we normally handoff to conventional forces. That’s what we did in Langkawi. In the air side, we walked in, set everything up, we got operations flowing, and then we handed off to the conventional forces like the 36th Airlift Squadron.”¹⁵⁵ By this time, AFSOF had transported 563,000

¹⁴⁹ Deptula, *Operation Unified Assistance (OUA)*, 59.

¹⁵⁰ Ibid., 60.

¹⁵¹ Ibid.

¹⁵² Morris, *With Compassion and Hope*, 100.

¹⁵³ Deptula, *Operation Unified Assistance (OUA)*, 60.

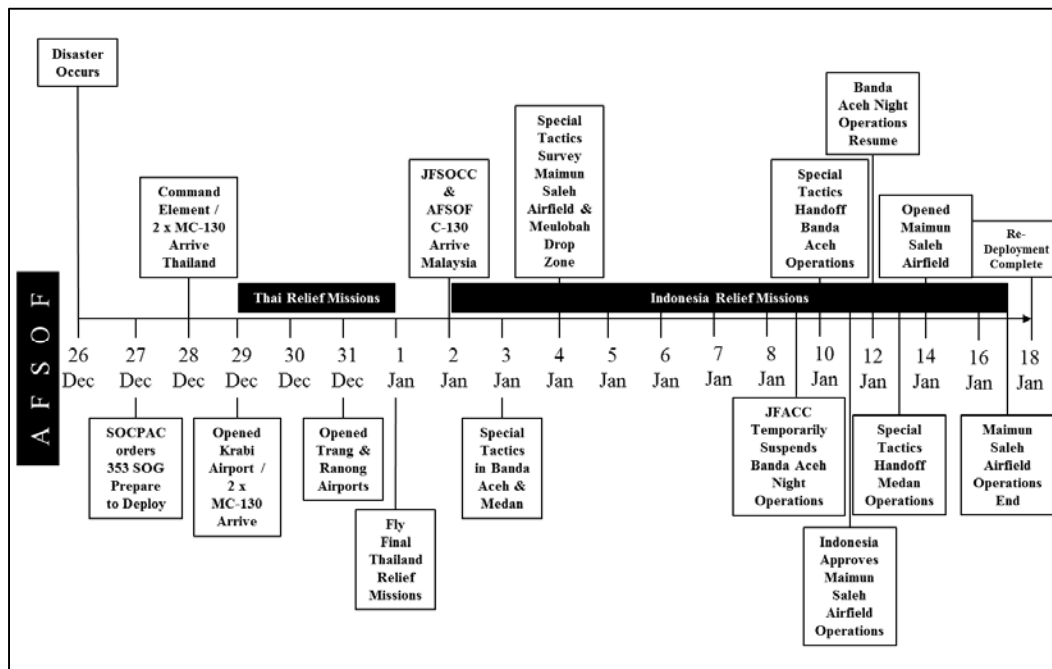
¹⁵⁴ Morris, *With Compassion and Hope*, 104.

¹⁵⁵ Ibid., 100.

pounds of aid, 436 relief workers and opened one airfield during their seventeen days in Indonesia.¹⁵⁶

In February, President Bush committed an additional \$600M, bringing the total to \$950 million, in support of rehabilitation and reconstruction of the areas affected by the disaster.¹⁵⁷ Three days later, JTF-536 stood down its mission; JTF-536 had delivered more than 24.5 million pounds of relief supplies and equipment with 26 ships, 82 planes, and 51 helicopters and a significant presence on the ground.¹⁵⁸ This was the largest U.S. air relief operation since the Berlin Airlift following World War II.¹⁵⁹ See Figure 5 for the AFSOF timeline during Operation Unified Assistance.

Figure 5. Operation Unified Assistance AFSOF Timeline



¹⁵⁶ “CSF-536 JFSOC: AAR Quicklook.”

¹⁵⁷ United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 16.

¹⁵⁸ Shaw, *Operation Unified Assistance*, C-3; and United States Agency for International Development, *Office of U.S. Foreign Disaster Assistance: Annual Report for Fiscal Year 2005*, 17.

¹⁵⁹ Morris, *With Compassion and Hope*, iii.

C. BEST PRACTICES AND LESSONS LEARNED

The AFSOF response in Operation Unified Assistance spanned from mission planning on December 27, 2004, the day after the disaster, until SOF's redeployment on January 18, 2005. During this operation, AFSOF's two best practices were its previously established relationships within the affected countries and its rapid-response capabilities. However, in contrast to these strong points, two additional areas were particularly problematic for AFSOF HADR operations: the overall understanding of AFSOF as a HADR rapid responder by the wider DOD and U.S. government; and ambiguous supporting forces concept of operations. Each of these points will be further explored below.

First, AFSOF leveraged its preexisting relationships and networks in the affected countries to rapidly deploy and begin relief operations. Both JTF-536 and the 353 SOG capitalized on their own previously established relationships, which enabled an early DOD response for the operation.¹⁶⁰ In Eric Shaw's case study for the Naval War College, he states, "Given the benefit of experience gained through regular Cobra Gold exercises in the region, [the JTF Commander] chose for the JTF headquarters the Royal Thai Base in Utapao, Thailand."¹⁶¹ AFSOF also maintains relationships with Thailand through regular Joint Combined Exchange Training exercises with the Thai military.¹⁶² Just prior to the onset of the disaster, the 353 SOG had trained in one of these exercises and its mission commander became the AFSOF element commander for the initial HADR mission in Thailand.¹⁶³ These relationships allowed both the JTF-536 and AFSOF command elements to establish themselves on the ground in Thailand despite the overall lack of information on the disaster's scope or magnitude.¹⁶⁴ Additionally, AFSOF gained necessary information from its Thai contacts to divert its forces from in-flight to Bangkok. These relationships and the coordination they allowed were critical because

¹⁶⁰ Laughlin, "Relief from the Sky," 8; Deptula, *Operation Unified Assistance (OUA)*, 47.

¹⁶¹ Shaw, *Operation Unified Assistance*, 9.

¹⁶² David Mobley, in discussion with authors.

¹⁶³ Ibid.

¹⁶⁴ Shaw, *Operation Unified Assistance*, 4.

DOD supplies did not start arriving in Utapao until December 29, and required time to organize before distribution.¹⁶⁵

AFSOF relationships further aided relief efforts in Bangkok. In the capital, supplies were quickly overloading the airfield and required immediate movement to those in need.¹⁶⁶ AFSOF successfully used its relationship with the Thai military to establish its forward headquarters exactly where the preponderance of relief supplies were located, and to help create a hub for the movement of aid to the hard-hit forward operating locations at Phuket, Krabi, Trang and Ranong airfields.¹⁶⁷ This freedom to maneuver came from the 353 SOG's initiative of communicating with common operating partners and reaching out to those with whom they do not often work.

The U.S. relationship with Malaysia aided AFSOF's rapid response in Indonesia, AFSOF's second area of focus. Through the U.S. Defense Attaché Office in Malaysia, AFSOF gained approval to setup a new forward headquarters on the island of Langkawi off the west coast of Malaysia. This location was significant because both Medan and Banda Aceh airfields remained congested and overcrowded, but this new airfield allowed for a closer response and the distribution of more relief supplies.¹⁶⁸

After the disaster, the JFACC reported that SOF "monopolized" their previously established relationships and networks with host nations; however, why the pejorative word "monopolized" was used is unclear.¹⁶⁹ He went on to say that the "forward presence and the relationships/networks that are in place with host nations prior to a crisis are vital to an urgent operation."¹⁷⁰ Regardless, AFSOF successfully leaned on its relationships with Thai and Malaysian militaries, the Joint United States Military

¹⁶⁵ Shaw, *Operation Unified Assistance*, 8.

¹⁶⁶ Mobley, in discussion with authors.

¹⁶⁷ Deptula, *Operation Unified Assistance (OUA)*, 50.

¹⁶⁸ *Ibid.*, 48.

¹⁶⁹ *Ibid.*, 42.

¹⁷⁰ *Ibid.*, 43.

Assistance Group, the defense attaché office, and special operations liaison element connections.¹⁷¹

These examples of successful collaboration between U.S. and host-nation forces demonstrate that relationships need to be in place and accessible well before the disaster strikes. The Deputy Secretary of Defense, Paul Wolfowitz, clearly summated this best practice, “The ability of the DOD to respond quickly would not have been possible without the relationships developed over many years with the militaries of countries in the region, particularly with Thailand.”¹⁷² Previously established connections and networks provided AFSOF with the means to draw in host-nation support in the case with Thailand and provide expertise while keeping itself in the background in the case with Indonesia.¹⁷³ Without these relationships, AFSOF would not have been able to move into the Bangkok airport as quickly, nor would AFSOF likely been allowed to base off the Malaysian coast when assisting Indonesia.

Second, AFSOF successfully demonstrated its rapid-response capabilities in the wake of this disaster, particularly its speed, organic C2, and capabilities to perform unique mission sets. During the disaster, the JFACC said, “A noteworthy success was the speed and efficiency with which United States Air Force Special Operations Forces were able to coordinate operations and begin airlift of supplies to the stricken region.”¹⁷⁴ The JFSOCC, in his after action report, added to this that AFSOF as a “first responder” is “able to mitigate chaos early” and “fill in gaps until others arrive.”¹⁷⁵ In addition to these traits, AFSOF’s basing in the Pacific allowed it to overcome the vast distance the disaster covered, as well as the global reach of its aircraft that are able to be refueled inflight.

AFSOF demonstrated the unique capabilities of speed and C2 in its rapid response following the Indian Ocean earthquake and resulting tsunami. AFSOF’s advance element

¹⁷¹ Laughlin, “Relief from the Sky,” 8.

¹⁷² *Tsunami Response: Lessons Learned: Hearing Before the Committee on Foreign Relations United States Senate*, 109th Cong., 1 (2005) (statement of Paul Wolfowitz, Deputy Secretary of Defense Administrator of USAID).

¹⁷³ “CSF-536 JFSOC: AAR Quicklook.”

¹⁷⁴ Deptula, *Operation Unified Assistance (OUA)*, 42.

¹⁷⁵ “CSF-536 JFSOC: AAR Quicklook.”

and aircraft both arrived in Bangkok on December 28, just two days after the disaster occurred. It began transporting relief supplies the next day, faster than any other DOD aircraft. Furthermore, AFSOF demonstrated its speed and agility in its transition from Thailand to Indonesia. In just two days, while flying relief missions during the move, AFSOF was able to relocate to Langkawi, Malaysia from Bangkok and begin flying missions the next day in Indonesia.

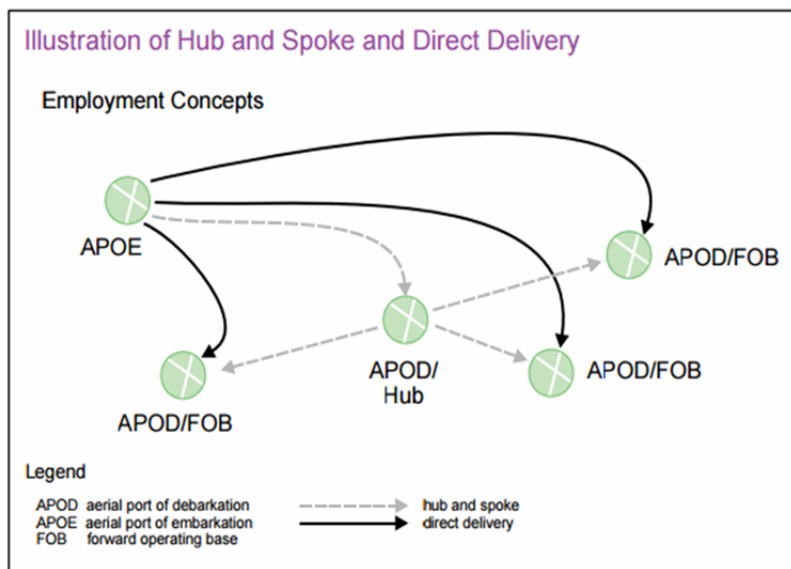
AFSOF's organic C2 capabilities, which are able to deliver context from chaos while providing unity of effort, was another key element in its ability to respond rapidly. Furthermore, AFSOF displayed the capability of working with other military and civilian entities during the crisis. For example, when the disaster struck, the 353 SOG leadership drove to the nearby base in Okinawa where the III MEF is located and introduced themselves to their Marine counterparts while explaining AFSOF capabilities. As a result, the JTF-536 commander provided his intent to the 353 SOG, while providing the SOG with freedom to maneuver in supporting these objectives.

Furthermore, the AFSOF C2 element effectively helped organize the multinational aid collection center at Bangkok, launched the first U.S. aircraft into Phuket, and opened three other airfields (Krabi, Trang, and Ranong) in Thailand.¹⁷⁶ These operations were in direct support to the JTF-536 and the JFACC's hub-and-spoke scheme of operation, where it is critical to "ferry relief supplies to outlying airfields."¹⁷⁷ Hub-and-spoke operations are depicted in Figure 6.

¹⁷⁶ "CSF-536 JFSOC: AAR Quicklook."

¹⁷⁷ Deptula, *Operation Unified Assistance (OUA)*, 4.

Figure 6. Hub-and-Spoke System



Source: Joint Chiefs of Staff, *Air Mobility Operations* (Joint Publication 3-17), (Washington, DC: Joint Chiefs of Staff, 2013), IV-14.

While AFSOF MC-130s cannot carry as much cargo as the Air Force’s strategic airlifters—the C-5, for example, can carry seven times the cargo of an MC-130—AFSOF can transport life-saving supplies in short time due to unique capabilities that other aircraft do not have, such as self-contained, instrument meteorological condition, and non-lit night landings.¹⁷⁸ Additionally, AFSOF brings a multitude of other unique capabilities, including special tactics teams who demonstrated their capabilities the day after arriving in Indonesia.

AFSOF positioned two special tactics teams at Medan and Banda Aceh airfields, which were responsible for controlling the flow of supplies into and out of those airfields until conventional support forces arrived eight days later.¹⁷⁹ Additionally, they supported Indonesia’s air traffic control system and helped articulate the imperative for slot times.¹⁸⁰ AFSOF special tactics teams quickly established flights and aid into and out of austere environments in Indonesia.

¹⁷⁸ Deptula, *Operation Unified Assistance (OUA)*, 22.

¹⁷⁹ Ibid., 8.

¹⁸⁰ Brozenick, in discussion with authors.

Due to its small size and speed, AFSOF cannot sustain itself for very long. Therefore, AFSOF is accustomed to handing off operations to follow-on forces or to the host-nation government. For example, AFSOF successfully handed off operations in Bangkok and Langkawi to conventional U.S. Air Force operators. Additionally, its special tactics teams successfully handed off ramp control at both Banda Aceh and Medan, Indonesia to the larger conventional U.S. Air Force mission support teams. These transitions of operations allowed AFSOF to focus on being a “first-in” force that is small and light, while supporting operations until the larger, more self-sustaining conventional forces arrive. The combination of size, speed, and ability to move in and out of an affected area makes AFSOF particularly useful in supporting the “gap within the gap.”

A primary lesson learned during Operation Unified Assistance is that there was limited knowledge of AFSOF as a HADR rapid responder within the wider DOD and U.S. government. Prior to this operation, JTF-536 lacked an understanding of AFSOF HADR capabilities while AFSOF lacked clarity on the JTF-536 concept of air operations for HADR. This occurred despite the fact that both III MEF and the 353 SOG headquarters were located within driving distance from each other on the island of Okinawa, Japan. Furthermore, the Indonesian government did not allow DOD forces to support its HADR operation until January 1, 2005, while appearing to limit the ground contact between the Indonesian people and uniformed responders from contributing nations; this effectively limited the scope and impact of U.S. AFSOF HADR operations to Banda Aceh airfield.¹⁸¹ Another problem was that the JFACC measured AFSOF’s involvement only through pounds of good delivered versus any of its rapid-responder capabilities, such as its speed or ability to survey and open airfields. AFSOF ultimately overcame these misperceptions and lack of understanding by demonstrating its unique capabilities, especially with its special tactics teams in Banda Aceh and Medan.

Another major lesson learned was about the challenges posed by an unclear understanding of the roles and responsibilities of supporting forces, particularly with air operations. This challenge became a significant problem for operations in Indonesia,

¹⁸¹ Brozenick, in discussion with authors.

particularly when both Banda Aceh and Medan airfields quickly became overcrowded with supplies and aircraft, and bad weather further hindered operations. USAID, as the U.S. lead agency, did not have a direct organizational link between itself and the DOD, and therefore could not adequately coordinate efforts. As Shaw describes, “Even [Office of United States Foreign Disaster Assistance] OFDA, USAID’s entity in charge of its HADR efforts, was separated by three levels from the in-country military commanders.”¹⁸² Moreover, while USAID provided liaisons to both USPACOM and the JTF-536 team in Sri Lanka, there is no evidence that the DOD provided a liaison to USAID.

AFSOF did not interact with USAID directly, which was another challenge for coordinating humanitarian efforts during the disaster. The 353 SOG provided direct support to JTF-536, despite the fact that the situation in Indonesia required greater interoperability between USAID and U.S. military forces. Specifically, AFSOF’s special tactics team struggled with interoperability challenges in Banda Aceh and Medan airfields. The uncoordinated mix of civilian and military aircraft operating at Banda Aceh, the limited number of special tactics personnel, and lack of immediate priorities created significant problems at both airfields. These operations would have benefited from a unified air concept of operations that could have de-conflicted roles and responsibilities, and better integrated efforts.

D. CONCLUSION

After the December 26, 2004 earthquake and subsequent tsunami, the world launched the largest HADR operation ever mounted: over 18 nations and 90 nongovernmental organizations united to provide relief to those countries affected by this disaster.¹⁸³ AFSOF was one of the initial responders for the United States. It demonstrated its rapid-responder capability by being one of the first forces on the ground and by supporting and handing-off operations in both Thailand and Malaysia for its 23-day involvement in the massive HADR operation. In three weeks, AFSOF accomplished

¹⁸² Shaw, *Operation Unified Assistance*, 16.

¹⁸³ *Ibid.*, 4.

a wide array of activities ranging from opening airfields, providing 24-hour operations through night-flying, organizing a multinational aid collection center in Bangkok, and setting up forward refueling operations for helicopters out of Maimun Saleh airfield. These efforts helped bring a massive amount of relief supplies to austere airfields in some of the hardest hit provinces in both Thailand and Indonesia.

The largest airlift operation since the Berlin Airlift was a success; part of that success came from AFSOF as a rapid responder. Its relationships with partner nations and their militaries, along with the rapid-responder capabilities that AFSOF possesses, made it an important participant in Operation Unified Assistance. The next chapter is a case study on AFSOF's support of Operation Damayan, the HADR operation in the Philippines as a result of Super Typhoon Haiyan in 2013.

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IV. OPERATION DAMAYAN

A. INTRODUCTION

In the early morning hours of November 8, 2013, Super Typhoon Haiyan made landfall in the Visayas region along the central east coast islands of the Philippines. See Figure 7. In total, the hurricane lasted 16 hours with winds estimated to be 195 miles per hour with top gusts of 235 miles per hour, and generated a significant tidal surge.¹⁸⁴ Ultimately, Haiyan was the fourth most intense typhoon ever observed and the strongest typhoon to ever make landfall.¹⁸⁵

Figure 7. Path of Super Typhoon Haiyan



Source: “Humans to Blame for Scaled of Devastation Caused by Typhoon Haiyan,” November 12, 2013, https://www.google.com/search?q=humans+to+blame+for+scale+of+destruction+caused+by+typhoon+haiyan&biw=1239&bih=443&source=lnms&tbn=isch&sa=X&ved=0CAcQ_AUoAmoVChMI35Lj4qyLyQIVC8JjCh3AwQwd#img=c=b3JFO4-VueAdPM%3A

¹⁸⁴ Thomas Lum and Rhoda Margesson, *Typhoon Haiyan (Yolanda): U.S. and International Response to Philippines Disaster* (CRS Report No. R43309) (Washington, DC: Congressional Research Service, 2014), 1–2, <http://www.fas.org/sgp/crs/row/R43309.pdf>.

¹⁸⁵ Art Behnke, “Operation Damayan” (presentation, U.S. Marine Corps Forces Pacific, Okinawa, Japan, December 9, 2013).

The path of destruction hit a large section of the Philippine islands. Kenneth Stewart and Dale Kuska, two communications experts, describe the immediate aftermath in Guiuan, a small municipality on a remote island in Samar Province, “Minutes later, nearly every single one of its 50,000 men, women and children had nothing.”¹⁸⁶ They go on to state, “By the end of the day, Haiyan had met a broad swath of the central Philippines, and it had left incomprehensible devastation across the Southeast Asia nation . . . thousands had died, millions were homeless, and billions in damage had left the country in ruin.”¹⁸⁷ The nation’s infrastructure suffered significant damage leaving areas with no running water or electricity and terrible destruction along the storm’s path.¹⁸⁸

The disaster, which would prove to be the deadliest natural disaster in Philippine history, affected over 10 percent of the nation’s 105 million people.¹⁸⁹ A 2014 Congressional report identified that the storm damaged or destroyed 65 to 90 percent of all structures in its trajectory; roads became blocked with fallen trees or debris; and airfields, a vital link within the island nation, sustained significant damage.¹⁹⁰ The Congressional report further estimated the number of dead at 6,201 with nearly 5.6 million people requiring food assistance and 1.1 million homes damaged or destroyed.¹⁹¹ These staggering numbers were the compounded result of both Typhoon Haiyan and a 7.1 magnitude earthquake that hit the region on October 15, less than a month before the typhoon.

In response to the crisis the DOD launched Operation Damayan on November 10, which means “helping each other” in Tagalog, the language of the region.¹⁹² The DOD

¹⁸⁶ Kenneth Stewart and Dale M. Kuska, “Operation HA/DR—NPS Efforts to Improve Humanitarian Assistance and Disaster Relief Operations,” *Naval Postgraduate School In Review Magazine*, February 2014, 12.

¹⁸⁷ Ibid.

¹⁸⁸ Ofer Merin et al., “Collaboration in Response to Disaster—Typhoon Yolanda and an Integrative Model,” *New England Journal of Medicine* 370, no. 13 (March 2014): 1183.

¹⁸⁹ Lum and Margesson, *Typhoon Haiyan (Yolanda)*, 1–2.

¹⁹⁰ Ibid., 1.

¹⁹¹ Ibid., 2.

¹⁹² Behnke, “Operation Damayan.”

supported this mission primarily with MEF in conjunction with the Pacific Fleet of the Navy, an Air Force CRG, and SOF, including AFSOF.

This chapter investigates the role of AFSOF during Operation Damayan following the 2013 super typhoon in the central Philippines. The next section details HADR knowledge gained from previous operations, followed by a section on the U.S. government response to Super Typhoon Haiyan. The following section identifies the best practices and lessons learned. Similar to Operation Unified Assistance, the response to the 2004 earthquake and subsequent tsunami in the Indian Ocean, AFSOF was able to leverage its rapid-responder capabilities and interoperability through its already established relationships in the region. Moreover, knowledge from prior HADR operations, specifically the January 2010 HADR mission to Haiti following a devastating earthquake (Operation Unified Response), provided an opportunity to bridge capability gaps and hasten the pace of relief delivery in the Philippine disaster. However, a critical lesson learned—the need to ensure that the larger HADR command structure understands AFSOF and how to use its assets effectively—becomes particularly evident in the unfolding of this operation. The final section provides a summary and conclusion of the chapter.

B. HADR KNOWLEDGE FROM PREVIOUS OPERATIONS

Prior to the disaster of Haiyan, AFSOF had engaged in several HADR efforts that helped hone its response to the super typhoon in the Philippines. First, as described in Chapter III, AFSOF learned valuable lessons from its contributions to the disaster relief in the wake of the 2004 earthquake and tsunami in Thailand and Indonesia. These lessons included making use of established relationships, the ability to establish austere airfield operations to open an aerial port, and handing off operations when no longer providing a unique capability.

Another of the more notable HADR operations that AFSOF participated in was Operation Unified Response, the multinational relief effort following the 2010 earthquake in Port-au-Prince, Haiti. Specifically, AFSOF was instrumental to opening a

port for aid to arrive approximately 28 hours after the earthquake struck.¹⁹³ Using its unique command structure, AFSOF was able to provide air traffic control services; airfield security; search and rescue; critical care evacuation; austere surgical operations teams; aerial port duties; humanitarian aerial delivery zone assessments; command and control capabilities; and linguistics professionals.¹⁹⁴ The most significant of these capabilities was the ability to open the airfield to international aid in Port-au-Prince. Highlighting capabilities, the Commander of the Joint Special Operations Air Component—Haiti (JSOAC-H), Colonel “Buck” Elton, described, “We landed at 7pm EST and had the Port-au-Prince airfield under our tactical air traffic control 28 minutes later.”¹⁹⁵ This tactical control began the AFSOF mission of preparing the airfield for a massive relief effort.

As part of this effort to open the airfield, AFSOF special tactics personnel provided the capability to get the airfield operational during the chaos created by the disaster. AFSOF personnel managed to establish command and control at the airport to accommodate “over 250 aircraft per day without phones, computers, or electricity.”¹⁹⁶ Under these conditions, AFSOF managed to bring in a total of 1,667 aircraft, 800 rotary wing missions, over four million pounds of aid, and the aerial delivery of 80,000 pounds of supplies to isolated areas.¹⁹⁷ AFSOF organized and controlled aircraft movement at Port-au-Prince’s Toussaint L’Ouverture International Airport for a total of 12 days, from the evening of January 13 until January 25, when AFSOF handed over the field to U.S. Air Guard air traffic control personnel.¹⁹⁸

Lieutenant Colonel Travis Norton, an Air Force Fellow with the Institute of Defense Analysis, states in a review of the HADR mission to Haiti that:

¹⁹³ Colonel Albert Elton, interview by David Schepp, 1st Special Operations Wing Historian, Hurlburt Field, FL, February 9, 2010.

¹⁹⁴ Colonel “Buck” Elton, “Haiti: Boots on the Ground Perspective,” *Small Wars Journal*, 2009, 1. <http://smallwarsjournal.com/blog/journal/docs-temp/355-elton.pdf>.

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

¹⁹⁷ “UNIFIED RESPONSE: JSOAC-Haiti,” undated PowerPoint presentation used by the USAF Special Operations School, given to author by Brig Gen Elton via email on August 12, 2014.

¹⁹⁸ Elton, interview by David Schepp.

By their very nature SOF are employed as the crisis response force. They are not organized, trained or equipped for long-term, large-scale steady state operations. After the initial weeks of the international relief effort, command guidelines and the greater support infrastructure “began to gel.” As additional capability was brought in . . . [AFSOF] started pulling back from “enabling the gaps” and focused on the primary job of taking care of airfield operations. In fact after the first week the 1st [Special Operations Group] SOG planners began preparing for their redeployment.¹⁹⁹

These same traits would be leveraged in the Philippines in 2013.

C. U.S. GOVERNMENT RESPONSE TO SUPER TYPHOON HAIYAN

The U.S. HADR response to Super Typhoon Haiyan benefited from the advanced warning systems designed to monitor typhoon activity in the Pacific. Given this warning, USAID had prepositioned a DART in Manila prior to the storm making landfall and began assessing the damage immediately following the storm’s passing.²⁰⁰

The day after the typhoon hit the Philippines, U.S. chargé d’affaires Brian L. Goldbeck declared a disaster, setting in motion the mechanisms needed for a HADR response by the U.S. government.²⁰¹ The same day, USAID’s OFDA began to provide funding for an immediate response, initially allocating \$20 million.²⁰² The U.S. DOS formally requested assistance from the DOD after the host nation sought support; subsequently, Secretary of Defense Chuck Hagel immediately directed the DOD to deploy appropriate HADR assets to assist in providing relief efforts.²⁰³

Further expediting the response, multiple DOD elements had begun preparations for a HADR mission before the storm ever made landfall based on reports of the typhoon bearing down on the Philippines. Within AFSOF, the 353rd SOG began tracking the

¹⁹⁹ Travis Norton, “A Vignette on C2 Agility: Joint Special Operations Air Component—Haiti.” (white paper, IDA, 2014), received from Colonel William C. Freeman, e-mail message to authors, October 2, 2014.

²⁰⁰ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief: Operation Damayan Support to the Republic of the Philippines after Typhoon Haiyan in November 2013* (Quantico, VA: Marine Corps Center for Lessons Learned, 2014), 9.

²⁰¹ Lum and Margesson, *Typhoon Haiyan (Yolanda)*, 7.

²⁰² United States Agency for International Development. “Philippines—Typhoon Yolanda/Haiyan,” Fact Sheet #1, Fiscal Year (FY) 2014, November 11, 2013, <https://www.usaid.gov/haiyan/fy14/fs01>.

²⁰³ Lum and Margesson, *Typhoon Haiyan (Yolanda)*, 7.

storm as a tropical depression on November 4; simultaneously, the SOG deployed an advanced team to Clark Air Base in the northern portion of the Philippines as part of a scheduled training exercise later that month. Beginning on November 6—days before the typhoon hit—USPACOM contacted the 36 CRG to begin preparations for a possible deployment due to the typhoon.²⁰⁴ Furthermore, USPACOM directed Marine Forces Pacific to begin planning response options to assist with a possible HADR mission to the Philippines.²⁰⁵

The III MEF crisis action team was already established and issued orders to prepare the deployment of its 3rd MEB when the formal orders came through on November 9.²⁰⁶ The Air Force CRG sent a liaison to Okinawa to imbed with III MEF to assist U.S. Marine Forces Pacific on understanding conventional Air Force capabilities.²⁰⁷ Anticipating further instruction, the Pacific Air Forces ordered the lead elements of the joint air component coordination element (JACCE) and CRG to deploy to Camp Aguinaldo in Manila where the Armed Forces of the Philippines headquarters resides.²⁰⁸

The impact of AFSOF units, in particular, was immediate. The aviation detachment of the Joint Special Operations Task Force—Philippines (JSOTF-P), a preexisting special operations counterterrorism task force composed of U.S. SOF units working in conjunction with their host-nation counterparts to stabilize the Southern Philippines, began conducting operations the morning after the typhoon made landfall.²⁰⁹ JSOTF-P, headquartered out of Camp Navarro in Zamboanga, directed their assets to conduct aerial reconnaissance on the areas damaged by the typhoon, collecting valuable

²⁰⁴ Thomas K. Livingston, *Operation Damayan: 36th Contingency Response Group Lessons and Observations* (Joint Base Pearl Harbor-Hickam, HI: Pacific Air Forces, 2013), 2.

²⁰⁵ Behnke, “Operation Damayan.”

²⁰⁶ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief*, 8.

²⁰⁷ Livingston, *Operation Damayan*, 2.

²⁰⁸ James B. Hecker, *Operation Damayan: Joint Air Component Coordination Element (JACCE) Lessons and Observations* (Joint Base Pearl Harbor-Hickam, HI: Pacific Air Forces, 2013), 1.

²⁰⁹ Robert McDowell et al., “Joint Special Operations Task Force—Philippines: Operation Damayan,” *Special Warfare* 27, no. 1 (January–March 2014): 53.

information on the status of airfields and lines of communications, especially on the hard hit islands of Leyte and Samar.²¹⁰

Shortly after reviewing the initial images, SOCPAC approved JSOTF-P to assist with HADR operations on November 10.²¹¹ By early evening, JSOTF-P had successfully inserted a joint SOF team into Tacloban airfield; this airfield would prove to be the lifeline of the HADR operation.²¹² The team consisted of a Special Forces officer, a medic, and a communications sergeant; two Civil Affairs soldiers; and an AFSOF special tactics controller.²¹³

Two days after the storm hit, the lead elements of the JACCE and CRG personnel arrived at Villamor Air Base in Manila to embed with the 3D MEB in their Combined Operations Center, which the Marines had stood up that day.²¹⁴ This began the integration of U.S. DOD services, including SOF who stood up a special operations liaison element (SOLE) within the Combined Operations Center.²¹⁵ Through the SOLE, AFSOF had a connection to III MEF, the host nation, NGOs, and others providing relief to the Philippines. On November 10, the 3D MEB deployed with aviation units from Okinawa, including 12 MV-22 Osprey and eight KC-130Js.²¹⁶ These Marine Corps aviation units arrived that day at Clark Air Base and Villamor Air Base, which became the hub of the operation while the multinational forces concentrated at Mactan-Cebu International Airport.²¹⁷ See Figure 8.

²¹⁰ McDowell et al., “Joint Special Operations Task Force—Philippines: Operation Damayan,” 54.

²¹¹ Ibid., 53.

²¹² Ibid.

²¹³ Ibid., 55.

²¹⁴ Livingston, *Operation Damayan*, 3.

²¹⁵ Brent Nestor, e-mail message to authors, September 10, 2015.

²¹⁶ Hecker, *Operation Damayan*, 1.

²¹⁷ Livingston, *Operation Damayan*, 3.

Figure 8. Operation Damayan Hub-and-Spoke System



Source: Art Behnke, “Operation Damayan” (presentation, U.S. Marine Corps Forces Pacific, Okinawa, Japan, December 9, 2013).

As the main hub of operations, aid flowed from Villamor to Tacloban, which was the best airfield for reaching the epicenter of destruction.

While other U.S. and Philippine forces were still deploying, an AFSOF special tactics team provided the first U.S. military “eyes on” Tacloban airfield.²¹⁸ The team assessed that Tacloban, in its current state, could only handle daylight operations in clear weather. Furthermore, the current ground controller equipment did not allow for communication with the Filipino C-130s. Finally, there was no road access to the airfield or city.²¹⁹

Simultaneously, the 353 SOG established an incident response team to assess options for providing assistance; building off the exercise plan in place the SOG determined they could provide special tactics teams enabling 24-hour airfield operations

²¹⁸ Michael Jackson, “U.S. SOF’s Role in Operations Damayan” (presentation, dated October 2, 2014), e-mail message to authors from Lt Col Jackson.

²¹⁹ Ibid.

at Tacloban with specialized mobility aircraft and the ability to expand to other nearby fields.²²⁰ These assets deployed with equipment to communicate with all aircraft operating into the airfield and enabled an around-the-clock flow of supplies to the field, thus overcoming the isolation from land routes. Supporting these elements, AFSOF deployed an organic logistics supply line, maintenance, communications, medical, and security forces.²²¹

As the operation moved into its third day, the Philippine government placed seven provinces under a state of national calamity, further stressing the need for DOD assistance.²²² In response, USPACOM issued an Execution Order on November 11 identifying USAID as the lead federal agency and making Marine Forces Pacific the lead command for the military response.²²³ The order directed U.S. military forces “to enable relief operations in the Republic of the Philippines in order to mitigate further loss of life, additional suffering, and reduce the scope of the disaster.”²²⁴ USPACOM listed its requirements as providing USAID with damage assessments and intra-theater lift support; military-to-military support to the Philippine military in affected areas; and support to transition other organizations in the recovery phase.²²⁵ Within this effort, SOCPAC released its AFSOF concept of operations described as: delivering supplies; civilian evacuation; expanding the range of airlift assets; supporting HADR assessments with ground SOF teams; handing-off operations to conventional forces; and relocating assets for further HADR support.²²⁶ On this same day, AFSOF U-28s began manned surveillance of the disaster areas, providing dynamic real-time HADR assessments from the air of critical population centers and lines of communication.²²⁷

²²⁰ Michael Jackson, in discussion with authors, June 30, 2015. The 353 SOG still completed 25% of the planned exercise during the joint combined exchange training Vector Balance Piston 14–1 while conducting HADR missions as tasked.

²²¹ Jackson, “U.S. SOF’s Role in Operations Damayan.”

²²² Livingston, *Operation Damayan*, 1.

²²³ Hecker, *Operation Damayan*, 1.

²²⁴ Livingston, *Operation Damayan*, 2.

²²⁵ Ibid.

²²⁶ Jackson, “U.S. SOF’s Role in Operations Damayan.”

²²⁷ Ibid.

On November 12, AFSOF's specialized mobility MC-130s arrived in the Philippines, bringing with them an all-weather day or night, fixed-wing mobility platform.²²⁸ These aircraft delivered robust special tactics teams comprised of weather, medical, and airfield control specialists along with communications equipment and all-terrain vehicles to control ground movements; they arrived in Tacloban late in the afternoon, which enabled night operations and better communications with all relief aircraft.²²⁹ In less than 24 hours, AFSOF special tactics nearly doubled the operating window for available air support.²³⁰ The special tactics members controlled Tacloban for two additional days before transferring overall responsibility to Marine Air Traffic Control Mobile Teams and providing background support while moving on to outlying airfields to conduct assessments.²³¹ During their time at Tacloban, special tactics controlled all rotary wing traffic, night fixed wing traffic, airfield management operations, and numerous medical functions.²³²

On November 13, USPACOM designated the Commanding General of III MEF, Lieutenant General John Wissler, as the Commander of Joint Task Force (JTF)-505. General Wissler, however, did not arrive in the Philippines until the next day, six days after the disaster struck.²³³ On November 14, the U.S. Navy *George Washington* Strike Group arrived off the coast of the Philippines and began conducting HADR operations using its H-60 and E-2 aircraft.²³⁴ Special tactics collaborated with the helicopter assets of the *Washington*, ultimately conducting 23 sling load deliveries—bundles secured to

²²⁸ Jackson, in discussion with authors.

²²⁹ Jackson, "U.S. SOF's Role in Operations Damayan."

²³⁰ Michael Jackson, e-mail message to authors, August 23, 2015.

²³¹ Randall Harvey, *Operation Damayan After Action Report (AAR)* (Okinawa, Japan: 320 STS, 2013).

²³² Harvey, *Operation Damayan After Action Report (AAR)*.

²³³ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief*, 4.

²³⁴ Euan Graham, "Super Typhoon Haiyan: ASEAN's Katrina Moment," *RSIS Commentaries*, no. 213 (November 2013), <https://www.rsis.edu.sg/wp-content/uploads/2014/07/CO13213.pdf>.

the bottom of a helicopter delivered to remote clearings—over the rest of the operation.²³⁵

That same day, a CRG airfield assessment team from Andersen Air Force Base in Guam arrived at Tacloban; they completed their first task of assessing the field for C-17 operations within a few hours concluding the field could only handle a single C-17 at a time.²³⁶ Despite no strategic airlift to date, the 3D MEB Combined Operations Center was conducting 24-hour operations employing AFSOF MC-130s, Marine KC-130Js and MV-22s.²³⁷ Furthermore, on November 14, an AFSOF MC-130 delivered special tactics personnel to Ormoc airfield and MV-22s delivered another special tactics team to Guiuan to establish operational airfields.²³⁸ Guiuan and Ormoc would become important supply hubs for the relief effort.

On November 15, the first C-17 arrived at Tacloban with mission handling equipment, mission controllers, security forces, and aerial port-centric personnel required by the CRG. That same day, a second C-17 of CRG personnel landed at Clark Air Base to establish a robust aerial port there.²³⁹ Two more U.S. Navy Ships, the *Germantown* and *Ashland*, prepared for a November 17 departure from Okinawa with additional elements of the MEU on-board to support HADR operations; they arrived on November 20.²⁴⁰

On November 16, JTF-505 officially stood up and the JACCE began to coordinate airlift for 3D MEB.²⁴¹ That same day, three conventional Air Force C-130s and 80 Air Force personnel arrived at Clark Air Base after having just completed a

²³⁵ Stephen Ove, *Operation Damayan: The Pacific Air Commandos in Support of the Typhoon Haiyan/Yolanda Relief in the Republic of the Philippines* (Okinawa, Japan: Office of History, 353rd Special Operations Group, 2014), 48.

²³⁶ Livingston, *Operation Damayan*, 5.

²³⁷ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief*, 8.

²³⁸ Jackson, “U.S. SOF’s Role in Operations Damayan.”

²³⁹ Livingston, *Operation Damayan*, 6.

²⁴⁰ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief*, 8.

²⁴¹ Jake Bailey, “AFP Wings Carry Operation Damayan Air Ops,” Yokota Air Base, November 28, 2013, <http://www.yokota.af.mil/news/story.asp?id=123372576>.

HADR exercise in Bangladesh.²⁴² As forces were coming together, the JACCE Commander, Brigadier General James Hecker, described his authority as “the ability to coordinate scalable joint and multinational air assets allowed us to augment the 3D Marine Expeditionary Brigade’s established process supporting the Philippine government’s airlift mission.”²⁴³ Primary missions included the delivery of aid and transportation of internally displaced persons. Additional high priority missions included tasks such as delivering mission critical refueling equipment to replace malfunctioning equipment at the supply node in Guiuan.²⁴⁴

The JTF-505 (Forward) reached its initial operating capacity on November 18.²⁴⁵ The role of the JTF, as described by the U.S. Marine Corps Center for Lessons Learned, was “to coordinate the U.S. military’s HADR efforts, in conjunction with the Department of State and USAID, to support the government of the Philippines-led response to Typhoon Haiyan.”²⁴⁶ As the JTF stood up in country, AFSOF special tactics teams were handing-off operations at Guiuan to a Marine Air Traffic Control Mobile Team, while simultaneously opening operations at Borongan.²⁴⁷

As the response moved into its tenth day on November 19, an AFSOF MC-130 filled a critical capability gap by flying a mission for the 3D MEB that involved moving sanitation equipment out of Zamboanga to the disaster zone in Tacloban. No other aircraft in the area of operations could fly in the weather conditions present to fulfill this priority mission. An AFSOF MC-130 used advanced terrain following radar and an internally calculated self-contained approach to deliver the equipment, a mission that

²⁴² Raymond Geoffroy. “Yokota Airmen Shift from Exercise to Real-World Ops and Join Operation Damayan,” Yokota Air Base, November 17, 2013, <http://www.yokota.af.mil/news/story.asp?id=123371063>.

²⁴³ Bailey, “AFP Wings Carry Operation Damayan Air Ops.”

²⁴⁴ Jackson, e-mail message to authors.

²⁴⁵ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief*, 4, 10.

²⁴⁶ Ibid.

²⁴⁷ Jackson, “U.S. SOF’s Role in Operations Damayan.”

AFSOF was uniquely qualified to perform.²⁴⁸ AFSOF MC-130s used this unique capability three additional times during critical moments of the operation.²⁴⁹

On November 20, JTF-505 reached its full operational capacity, four days prior to USAID terminating requests to use military airlift for delivery of relief supplies.²⁵⁰ In the limited time remaining, the JACCE established air movement slot times, which provided known arrival times of aircraft at airfields to ensure available ramp space to improve the movement of the remaining supplies. This system replaced the previously established role of the 3D MEB acting “as the focal point for U.S. airlift [operations, including those conducted by AFSOF,] supporting Operation Damayan.”²⁵¹ That same day, Pacific Fleet began to redeploy their forces as the *George Washington* departed the area of operations.²⁵² The total in humanitarian funding by the DOD and USAID had reached over \$47 million by this date.²⁵³

The following day, the CRG initiated potential redeployment options from Tacloban and drew up plans for turning over all airfield responsibility to Filipino civil authorities.²⁵⁴ In Ormoc, the special tactics team handed over control of operations to host-nation air traffic control and shut down its operations at Borongan because the airfield was no longer required.²⁵⁵ The following day, November 22, JSOTF-P personnel returned to their pre-typhoon mission within the Philippines and AFSOF personnel from the 353 SOG completed the remainder of their exercise in Luzon or returned to their home base in Okinawa.²⁵⁶

²⁴⁸ Ove, *Operation Damayan*, 41.

²⁴⁹ Dave Lucas, *Vector Balance Piston 14-1/Operation Damayan After-Action Report (AAR)*, (Okinawa, Japan: 1 SOS, 2013).

²⁵⁰ Hecker, *Operation Damayan*, 2.

²⁵¹ *Ibid.*, 3.

²⁵² Behnke, “Operation Damayan.”

²⁵³ United States Agency for International Development, “Philippines—Typhoon Yolanda/Haiyan,” Fact Sheet #9, Fiscal Year (FY) 2014, November 20, 2013, <https://www.usaid.gov/haiyan/fy14/fs09>.

²⁵⁴ Livingston, *Operation Damayan*, 11.

²⁵⁵ Jackson, “U.S. SOF’s Role in Operations Damayan.”

²⁵⁶ *Ibid.*

As AFSOF assets were relieved from the HADR mission, elements of the DOD continued to support overall relief efforts. On November 23, an Air Force C-130 delivered the final shipment of USAID-requested supplies to Tacloban Airport during a final surge of conventional relief sorties.²⁵⁷

On November 24, the DOD announced it would begin to draw down forces and the Philippine government and other humanitarian organizations would assume all HADR roles. JTF-505 completed its mission on December 1.²⁵⁸ The drawdown continued until December 3, just over three weeks after the initial disaster; the DOD disestablished JTF-505 and the military operation ended.²⁵⁹ During the period of DOD involvement in the relief operation, U.S. funding for the effort reached just under \$60 million.²⁶⁰

According to Lum and Margesson's description of the U.S. and international response to the disaster, "at its peak, U.S. military efforts included more than 13,400 military personnel, 66 aircraft, and 12 naval vessels. The U.S. military delivered more than 2,495 tons of relief supplies and evacuated over 21,000 people, including 500 American citizens. Also, over 1,300 flights were completed in support of the relief efforts for Operation Damayan delivering to approximately 450 sites."²⁶¹ During this process, AFSOF MC-130 aircrews contributed to the movement of over 3,000 individually displaced persons and 678,000 pounds of aid across 155 sorties and 188 hours of flight time; additionally, U-28s enabled the early and accurate assessments of where to deliver forces and aid.²⁶² These contributions were made possible by the efforts of special tactics personnel who enabled night operations at Tacloban, opened three additional airfields, controlled over 650 flights delivering in excess of 1.8 million pounds of relief and moving 6,590 individually displaced persons. Furthermore, their efforts enabled the

²⁵⁷ Bailey, "AFP Wings Carry Operation Damayan Air Ops."

²⁵⁸ Lum and Margesson, *Typhoon Haiyan (Yolanda)*, 8.

²⁵⁹ Hecker, *Operation Damayan*, 1.

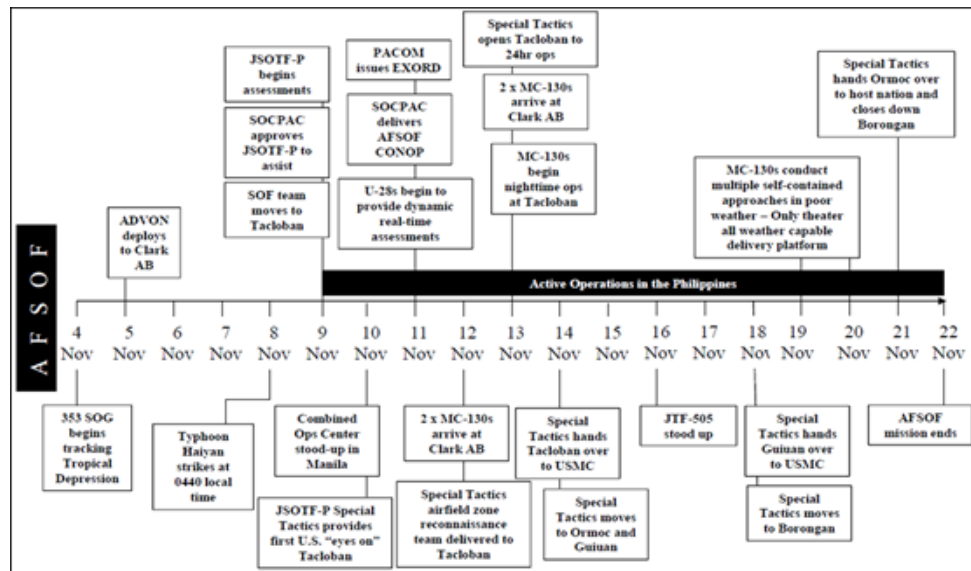
²⁶⁰ United States Agency for International Development. "Philippines—Typhoon Yolanda/Haiyan," Fact Sheet #13, Fiscal Year (FY) 2014, November 27, 2013, <https://www.usaid.gov/haiyan/fy14/fs13>.

²⁶¹ Lum and Margesson, *Typhoon Haiyan (Yolanda)*, 8.

²⁶² Ove, *Operation Damayan*, 50–51.

transfer of 126,000 pounds of fuel to rotary wing assets and 23 helicopter sling load operations.²⁶³ See Figure 9 for an AFSOF timeline.

Figure 9. Operation Damayan AFSOF Timeline



D. BEST PRACTICES AND LESSON LEARNED

The AFSOF mission during Operation Damayan lasted a total of 13 days, from November 9, when JSOTF-P first directed special tactics members to make airfield assessments, until the redeployment of all SOF to pre-typhoon roles on November 22. During this operation, AFSOF's two best practices included its rapid-response capabilities and interoperability fostered through relationships. These positive attributes enabled AFSOF to respond effectively to the operation. In addition to these best practices, AFSOF also learned valuable lessons, specifically, that they could have improved communication with the command elements during Operation Damayan, which would have provided a more coordinated relief effort. These points will be further discussed below.

²⁶³ Ove, *Operation Damayan*, 48.

AFSOF's rapid-response capabilities proved critical during Operation Damayan, specifically its speed resulting from its alert posture, its organic C2, and its unique mission sets (see Appendix A). In the case of Operation Damayan, AFSOF special tactics from the 353 SOG began mission preparation before the typhoon even struck the Philippines; they immediately put an airfield zone reconnaissance team into alert and used imagery to identify C-130 capable runways in the projected path of the storm.²⁶⁴ By the time the DOD had officially tasked the 353 SOG on November 11, it was already prepared with three different courses of action ranging from small to large deployment packages.²⁶⁵

AFSOF's flexible readiness allowed its four MC-130s and multiple special tactics teams to arrive in theater less than 24 hours after initial notification and began making an immediate impact. Once on the ground there was no need to devise approaches to meet the need of opening fields for night operations; special tactics teams were ready to operate immediately. This was possible because AFSOF understood the mission, tailored their deployment accordingly, and ensured the right mixture of capabilities based on regular alert deployments.

Second, AFSOF provided organic C2 capabilities that otherwise would not have been present in the immediate aftermath of the typhoon. A MEB officer described the complex logistical plan, "All of the [USAID] materials flew into Villamor Air Base from Manila, from Dubai, from USAID stores, that's where we [established] the first hub. Then we 'spoked' it out to Tacloban, so [for] distribution, the air assets were the only way to move those."²⁶⁶ While the hub-and-spoke system provided a logistical design to move aid efficiently throughout the country, it required AFSOF's C2 capability to run operations out of multiple airfields simultaneously in a short timeline. AFSOF sent a liaison to Villamor Air Base to coordinate operations with the MEB and USAID. Additionally, AFSOF used its light, yet capable, joint special operations air detachment to run primary AFSOF operations out of Clark Air Base. AFSOF then used self-contained

²⁶⁴ 320th Special Tactics Squadron, *Operation Damayan After Action Brief* (Okinawa, Japan: 320 STS, 2013).

²⁶⁵ Jackson, "U.S. SOF's Role in Operations Damayan."

²⁶⁶ United States Marine Corps, *Foreign Humanitarian Assistance and Disaster Relief*, 11.

special tactics teams to run forward operations out of Tacloban, Guiuan, Ormoc, and Borongan. Through this web, AFSOF informed the Combined Operations Center which fields were open and their status on receiving aid. This information allowed the coordination cell at Villamor to work with USAID on the most expeditious way to get aid forward.

Third, AFSOF's unique mission sets were particularly valuable for this operation. AFSOF's special tactics personnel and its aviation capabilities played a lead role due to their night-vision-goggle capabilities, all-weather capable platforms, and rapid air-land infiltration and exfiltration.²⁶⁷ These capabilities allowed for 24-hour operations into Tacloban airfield, the primary forward airfield for this operation. A JSOTF-P report commented on AFSOF's special tactics involvement in this operation, "The opening of airfields by (Special Tactics Controllers) was absolutely critical to the success of the entire relief effort and it was one of the most visible actions that showed the host nation and the world that help was coming to the Philippines."²⁶⁸ The action of these special tactics members alleviated choke points in the flow of aid enabling Marine and international airlift by day and AFSOF MC-130s (and later in the operation conventional C-130s) during the night to remote and outlying fields.²⁶⁹ AFSOF's ability to not only open austere airfields, but to operate out of them in almost any condition, allowed the people of the Philippines to receive support early into the relief operation.

Overall, AFSOF was able to respond to the call for assistance from the Philippines and other services based on its rapid-response capabilities. As the JSOTF-P Commander contends, "The 353 SOG was critical to the emplacement and support of JSOTF-P personnel, the movement of hundreds of internally displaced persons, and the delivery of thousands of pounds of relief supplies."²⁷⁰ AFSOF's alert posture, organic C2 capabilities, and unique mission sets assisted JSOTF-P, the MEB, the CRG, and Philippine forces to succeed in this operation.

²⁶⁷ Jackson, "U.S. SOF's Role in Operations Damayan."

²⁶⁸ McDowell et al., "Joint Special Operations Task Force—Philippines," 56.

²⁶⁹ Ibid.

²⁷⁰ Ibid., 54.

In addition to rapid-response attributes, the ability to leverage pre-existing relationships and create new ones throughout the operation enabled a greater response by AFSOF. These relationships spanned both established connections in the host nation along with newly formed partnerships with fellow DOD units and other humanitarian counterparts. Lum and Margesson highlight that, “U.S. military forces are involved in several regular joint exercises and ongoing military missions in the Philippines. The two major ones are the Balikatan (Shoulder-to-Shoulder) exercises and the JSOTF-P counterterrorism assistance.”²⁷¹ They further state that when the typhoon made landfall, the United States had a “small footprint” inside the Philippines; the primary presence was roughly 500 individuals supporting JSOTF-P on counterterrorism training.²⁷² The JACCE describes the resulting relationship between the two countries, “the Philippine military has a positive view of the United States based on historical bonds, a standing mutual defense treaty, and ongoing combined SOF operations.”²⁷³ These relationships opened doors and forged a trusting partnership with the Philippine government that helped efficiently provide aid to the country.

These relationships led to SOF’s ability to move and interact with the public. A *Special Warfare* article on Operation Damayan highlights that JSOTF-P personnel, who include AFSOF members, “were conducting ground and aerial movements around the clock to assess remote areas and interact with the local populations and relief agencies.”²⁷⁴ The initial freedom of movement of JSOTF-P and AFSOF assets enabled proper asset allocation through, “insight into the conditions of the affected areas and facilitated with accurate planning.”²⁷⁵ The JSOTF-P Commander highlighted the importance of assisting in the operation while not taking over through the following statement, “Experienced SOF operators knew where to go to find the centers of gravity in the Human Domain and force multiply by orchestrating existing networks. While SOF

²⁷¹ Lum and Margesson, *Typhoon Haiyan (Yolanda)*, 12.

²⁷² Ibid.

²⁷³ Hecker, *Operation Damayan*, 5.

²⁷⁴ McDowell et al., “Joint Special Operations Task Force—Philippines,” 54.

²⁷⁵ Ibid.

teams bring high impact, they are innately designed to be the small-footprint, low-signature asset that enables others (host nation and relief elements) to remain the epicenter of attention.”²⁷⁶ AFSOF’s regular exercises, combined with JSOTF-P’s supportive mission, allowed SOF as a whole to support Operation Damayan in a critical way. Furthermore, AFSOF members created new networks, especially between special tactics and the Marine MV-22 crews, to branch out and get aid to people in need.

In addition to the success listed above, AFSOF learned an important lesson during Operation Damayan. While AFSOF’s relationship with USAID was good during this operation, USAID fixated on Tacloban as the central point for aid distribution in the disaster area. As support to USAID, the 3D MEB’s priority and main effort was to support the airfield at Tacloban while AFSOF provided other options to expand the relief web out further.²⁷⁷ For the first 48 hours of the operation, the 3D MEB did not understand what AFSOF could provide beyond airlift because they saw the Air Force solely as airplane centric and did not understand the ground element of AFSOF special tactics teams.²⁷⁸ Eventually, through the Combined Operations Center and interaction with the SOLE, the 3D MEB became comfortable with AFSOF acting as forward ground teams running airfields, hastening the creation of the hub-and-spoke tactic and opening new airfields. However, by not having a joint planning session early in the operation to explain capabilities, the JTF did not move aid as efficiently as was possible. To counter this, AFSOF brought with them its largest package available for special tactics, enabling them to operate and run multiple airfields.

Within the guidance from JTF-505, special tactics teams built relationships with the Marine MV-22 aircrews and were able to secure flights to Guiuan and Borongan. Through these relationships, AFSOF moved to these locations and opened the airfields for HADR operations. While these operations succeeded in providing relief to communities stranded deeper in the country, USAID was not the organization dictating these efforts. Rather, USAID was aware of AFSOF actions through coordination at the Combined Operations

²⁷⁶ McDowell et al., “Joint Special Operations Task Force—Philippines,” 57–58.

²⁷⁷ Michael Jackson, e-mail message to authors, September 14, 2015.

²⁷⁸ Ibid.

Center.²⁷⁹ From this experience, USAID witnessed AFSOF moving forward from Tacloban without official tasking and provided approval through consent.²⁸⁰ This illustrates how rapid responders may get ahead of guidance, which could have negative consequences, including distrust between entities on the ground. Furthermore, lack of coordination between rapid responders and the lead agency can have dangerous consequences by putting vital aid where it does not belong or cannot be distributed. Finally, this lack of coordination can simply waste invaluable time and resources from priority missions. Andrew Natsios, in his book *U.S. Foreign Policy and the Four Horsemen of the Apocalypse*, discusses this sensitive topic, “Any military mission with objectives that are ill-defined, conflicting, or simply unrealistic is likely to fail, however noble its purpose.”²⁸¹

In this case, AFSOF stretched beyond the desires of USAID, though with their consent, and could have caused mistrust or in the worst scenario, derailed the HADR operation had anything gone wrong. USAID remained “in the loop” and AFSOF never performed anything undesired; however, AFSOF teetered on the edge of this fine line and without formal coordination could have if they were not careful. To overcome this situation a better joint planning process early in the operation would have been beneficial. This joint planning process would provide AFSOF with a forum to explain their capabilities prior to operating in chaos in the wake of a disaster. Instead, stakeholders did their planning in a vacuum with the MEF preparing their forces, JSOTF-P operating in country, the 353 SOG focusing on transitioning to the Philippines, and USAID concentrating only on Tacloban as an aerial port before integrating with the other forces.²⁸² Brigadier General Hecker, in his observations on Operation Damayan states, “Natural disasters in the Pacific are a matter of ‘when,’ not ‘if.’ And rather than waiting until a disaster strikes to assemble a joint, interagency HADR team, an off-the-shelf JTF construct should be designed and exercised.”²⁸³ To overcome these issues highlighted by the JACCE commander, AFSOF

²⁷⁹ Michael Jackson, e-mail message to authors, September 14, 2015.

²⁸⁰ Michael Jackson, e-mail message to authors, September 23, 2015.

²⁸¹ Andrew Natsios, *U.S. Foreign Policy and the Four Horsemen of the Apocalypse: Humanitarian Relief in Complex Emergencies* (Westport, CT: Praeger Publishers, 1997): 117.

²⁸² Jackson, in discussion with authors.

²⁸³ Hecker, *Operation Damayan*, 12.

needs to coordinate with the other players early in the event to explain what their unique capabilities are so other forces use these resources properly. Furthermore, AFSOF needs to communicate what they are doing to ensure it meets the needs of the supported forces and not conduct operations just because they can. Fortunately, AFSOF's ability to move forward in this operation worked out well, but this may not always be the case.

E. CONCLUSION

Operation Damayan stood up to its Tagalog translation of “helping each other.” The U.S. response was extremely quick and efficient. AFSOF played a major part in this operation, as part of the standing JSOTF-P and through the 353 SOG. Both SOF organizations used AFSOF to react to this disaster in unmatched speed providing support for operations into Tacloban and three additional airfields: Guiuan; Ormoc; and Borongan. AFSOF provided 24-hour capacity at Tacloban airfield, a critical piece of the hub-and-spoke construct. AFSOF used its rapid-responder capabilities, unique relationships, and past lessons learned to become a critical force multiplier for host nation and conventional forces. These capabilities, however, also allowed AFSOF to get ahead of USAID's intended initial guidance due to a lack of understanding.

The next chapter will include recommendations and conclusions on the utility of AFSOF in HADR operations through reflection on the literature reviewed, and the case studies. From this discussion, the thesis will provide a concept of operations for how AFSOF should respond to disasters when they occur in the future.

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V. CONCLUSION AND RECOMMENDATIONS

A. SUMMARY POINTS

History has shown us that natural disasters are a given in life; however, even with this understanding it is difficult to prepare for them, and, once a disaster occurs, it requires rapid responders to overcome their devastating effects. Within the DOD, AFSOF is a valuable entity for disaster rapid response based on their capabilities and relationships. AFSOF has the ability to fill critical gaps in providing relief, particularly in the first hours and days following the disaster, and can create the conditions for larger forces to deploy to austere and devastated regions. However, even though AFSOF has conducted successful HADR missions in the past, there are still opportunities to improve on these missions. Specifically, AFSOF needs to improve its interaction with USAID and other DOD rapid responders to apply its unique skills more effectively when called upon to mitigate loss of life and alleviate suffering during the next major disaster.

To illustrate these points, this thesis began with a short history of U.S. involvement in HADR operations. It included a brief discussion on the process of U.S. involvement in foreign disasters, as well as the key players in the U.S. government, particularly USAID and the DOD. Within the DOD, it noted the crucial HADR capable forces include MEF, Air Force CRG, SOF, and AFSOF, in particular.

The thesis then investigated two recent HADR missions. Chapter III provided a review of Operation Unified Assistance, the largest international relief efforts in history. AFSOF participation in this operation included four critical contributions. First, it made use of its preexisting relationships in the Pacific theater, particularly its relationship with the Thai military to access airbases and reach the most affected areas in the region. Second, it leveraged its organic C2 and speed capabilities, specifically using its own C2 channels to divert its staging location from Utapao to Bangkok, based on information received from Thai contacts. Once on the ground, AFSOF's speed of operations meant moving supplies ahead of other DOD assets. Additionally, these attributes allowed AFSOF to provide immediate relief to Thailand and then swiftly move operations in

support of Indonesia. As a third contribution, AFSOF further used its contacts to establish a relationship with the Malaysian military to open a new staging location on the west coast of Malaysia allowing for relief efforts to Indonesia. Fourth, once operations started into Indonesia, the AFSOF special tactics teams controlled the dangerously congested ramps at Medan and Banda Aceh airfields, while opening the Maimun Saleh airfield, which allowed for a hub-and-spoke tactic for delivering aid from distribution centers to hard-hit areas.

Chapter IV traced AFSOF's involvement in Operation Damayan, which provided relief following the 2013 Super Typhoon Haiyan that swept across the central Philippines. Building off the lessons learned from Operation Unified Response after the 2010 Haitian earthquake, AFSOF provided three critical capabilities to relief efforts in the Philippines. First, AFSOF made use of lessons learned from Haiti by developing a HADR course of action ahead of any formal tasking and by establishing the Tacloban airfield for 24-hour operations. Second, AFSOF offered an almost immediate response to Operation Damayan by leveraging forces already situated in the Philippines. Third, AFSOF utilized their organic C2, Intelligence Surveillance and Reconnaissance capabilities, and its relationships to comprehend the severity of the situation quickly and go to where the aid was needed most. Examples of these capabilities included airborne surveillance that helped establish aid stations and identify areas in need. Additionally, special tactics coordinated with the local populace and Marine MV-22 crews to help identify and open three additional airfields beyond Tacloban.

In addition to these contributions, both Operation Unified Assistance and Operation Damayan offered areas of improvement for AFSOF in future HADR operations. In Operation Unified Assistance, other HADR agencies lacked a full understanding of AFSOF's capabilities, leading to a less than optimal employment of AFSOF during the operation. For example, the JTF was unaware of the capabilities AFSOF could provide in different phases of the operation and various agencies were uncomfortable working with units labeled "special operations." The same issue of misunderstanding on the capabilities of AFSOF was also present during the 2013 operation in the Philippines. For example, the lack of a joint planning session or

integration before arriving on the ground in country resulted in the MEF initially not understanding AFSOF's special tactics capabilities.

Finally, the case studies revealed that each of the DOD rapid responders complemented the others in specific ways and each has its own strengths and limitations. Specifically, the MEF has organic sea, land, and air assets, in addition to a long-term sustainment capability. Because of these characteristics, the MEF tends to be the lead DOD entity for responding to rapid-onset foreign natural disasters. This was the case during both Operation Unified Assistance and Operation Damayan. The MEF, however, does not have a fleet of strategic airlift assets, or a robust ability to open isolated airfields. The CRG provides a robust airfield control capability, with the ability to operate during sustained long-term HADR deployments. However, the case studies showed that the CRG lacked its own organic airlift, making it reliant on supporting Air Force organizations for deployment, typically slowing the CRG response. AFSOF possesses organic lift while maintaining the capability to open airfields, making AFSOF a valuable rapid responder. Specifically AFSOF's speed, organic C2, unique mission sets (see Appendix A), and relationships enable the priming of the disaster area until follow-on forces arrive. The case studies demonstrated AFSOF's value particularly early in the HADR response; AFSOF's best utility is in short duration operations. Other forces, such as the MEF and CRG are needed for long-term sustainment.

This chapter concludes with recommendations for improving future AFSOF HADR operations that are almost certain to occur again. The thesis also includes an AFSOF Disaster Response CONOPS located in Appendix B.

B. RECOMMENDATIONS

The following four recommendations provide a path for AFSOF to have a better response capacity in future HADR operations.

First, USAID and DOD responders should have a common operating framework for HADR missions. As the lead agency for HADR operations, USAID controls the response. To this degree, the DOD should align its doctrinal definitions for HADR to mirror those of USAID. This action would put both the DOD and USAID on a common

understanding when a specific HADR term is used. To assist in addressing this issue, the USAID definitions used to respond to HADR operations, which differ from those of the DOD, are included in the AFSOF Disaster Response CONOPS in Appendix B. Furthermore, the DOD should adapt the Joint Publication (JP) 3–29 *Foreign Humanitarian Assistance* to align its definitions with USAID’s lexicon.

Second, USAID and DOD should work toward greater interoperability before a HADR crisis occurs. Part of improving the process of interoperability is a more thorough understanding of the key players in an organization, along with educating various players on the capabilities of one’s own organization. The case studies revealed that AFSOF leaders received no or limited interagency training prior to engaging in HADR operations. However, given AFSOF’s penchant for creating and sustaining relationships, this should be a relatively easy barrier for AFSOF to overcome. Specifically, USAID’s Joint Humanitarian Operations Course (JHOC) should be required for anyone placed in a leadership role during a HADR operation and recommended for all AFSOF members. USAID, through the Office of Civilian-Military Cooperation, conducts this training regularly and worldwide. The various AFSOF wings and groups should coordinate with USAID to offer this training to their members, especially AFSOF assets located in the Pacific theater. Furthermore, AFSOF should provide a capabilities brief to the visiting JHOC team and provide additional briefs to improve USAID’s and other DOD rapid responders’ understanding of AFSOF capabilities. Finally, the JP 3–29 *Foreign Humanitarian Assistance* should include a more robust section on SOF, especially AFSOF and their unique mission sets.

Third, AFSOF should work toward maintaining a habitual relationship with the humanitarian assistance community to prepare to support HADR missions. AFSOF training and skill sets are a natural fit for the capabilities needed in a HADR operation: working in an austere environment; the need for all weather capability; the ability to conduct 24-hour operations; the use of night vision goggles; ability to operate self-sustained; and rapid employment at a moment’s notice. In order to utilize these skills, AFSOF leadership should foster a habitual relationship at the leadership and planning levels with USAID and other HADR forces. AFSOF has a limited understanding of the

needs of the humanitarian assistance community and, similarly, the humanitarian assistance community seems to have a limited understanding of AFSOF capabilities. Building relationships at the leadership level would help mitigate this problem.

Given the critical information gaps presented in this paper, AFSOF should improve its interoperability with other agencies by ensuring the organizations who are leading the effort understand the unique capabilities that AFSOF can provide during the operation. A step toward rectifying the issue of a lack of knowledge between USAID and AFSOF is tabletop exercises. These exercises would provide multiple benefits to both AFSOF and USAID, along with any other organizations involved in the scenario. First, interoperability would improve through an understanding of capabilities worked out during a realistic scenario. Furthermore, if an agency or organization fails to fully understand other agencies' capabilities (or an agency's inability to accomplish a certain task), the players can discuss the limitations beforehand and develop work arounds, thereby preventing any issues that could arise in a real life situation. Given the small size of AFSOF and USAID, these exercises would foster relationships that would likely meet up in the field. Even if the exact individuals are not on scene during the disaster event, a network of people will begin to form to provide subject matter expertise or connections to the required information. These HADR tabletop exercises ideally should not be limited to AFSOF and USAID. Whenever possible and based on the situation exercised, the MEF and CRG should be included to improve interoperability with other DOD HADR rapid responders as well.

The final recommendation is to improve AFSOF planning for a HADR event through the AFSOF Disaster Response CONOPS presented in Appendix B. This document prepares commanders and their staff to develop courses of action for an efficient response during rapid-onset foreign disaster relief operations. The CONOPS separates AFSOF's response into four distinct phases: initial planning, time-critical life-saving actions, disaster relief operations support, and handoff operations.

The initial planning phase attempts to maximize the limited time available before the deployment of forces. As seen in the case studies, this timeframe can be robust through early warning detection (as seen in Operation Damayan), or it can occur in less

than 24 hours (as was the case in Operation Unified Assistance and Operation Unified Response). The initial planning involves creating a tailorable and scalable organic C2 entity to manage AFSOF assets. This C2 construct should focus on intelligence preparation of the disaster area, focusing on identifying the best staging base and forward airfields to support the hub-and-spoke concept. Furthermore, leadership should work initial coordination with USAID and other DOD rapid responders, along with a lessons learned review of past HADR missions.

The time-critical, life-saving actions phase begins as soon as AFSOF arrives in the disaster area, whether airborne providing surveillance support or after landing providing ground search-and-rescue capabilities with their special tactics teams. At this point in the disaster, there is limited C2, intelligence, and communication. AFSOF needs to link-up immediately with its DOD hierarchy, host-nation representatives, and the USAID DART. These players within HADR can generate rough initial needs assessments, allowing AFSOF to provide initial search-and-rescue operations and critical aid delivery. There are typically a number of relief gaps (lack of C2, communications, security, HADR expertise, etc.) that AFSOF members can fill until more robust forces arrive. This phase tends to last only a few days; however as new disaster areas become accessible this phase can reoccur.

Concurrently, the third phase begins with disaster relief support. This phase focuses on integrating the movement and delivery of relief supplies. The goal should be to move away from pushing to outlying areas what is believed as necessary relief supplies, to the affected areas pulling the supplies actually needed through requests or needs assessments. This process requires a unity of effort from all organizations involved; no organization should make assumptions of humanitarian need on their own. AFSOF, in particular, should focus on opening forward airfields as part of the hub-and-spoke concept and achieving a 24-hour operations window. AFSOF aircraft and personnel provide unique capabilities to partner with the host nation, international actors, or the DOD to enable 24-hour operations into often austere airfields.

The fourth and final phase, handoff operations, involves AFSOF handing over control of airfields and airlift operations to larger DOD organizations or the host nation.

This is the goal of AFSOF operations in HADR events, and AFSOF leaders should plan for this ultimate goal. While AFSOF can operate in a non-SOF role, especially with regard to tactical airlift, this support should be limited once conventional forces arrive in the disaster area.

The AFSOF Disaster Response CONOPS should be used during HADR operations; it should also be exercised and revised, as needed, to provide the most up-to-date and accurate analysis of AFSOF utility in rapid-onset, natural disasters. Each of the recommendations above provides an opportunity should AFSOF wish to improve its HADR response capability. These efforts each require that the parties involved take action before a disaster strikes.

C. CONCLUSION

Rapid-onset natural disasters are difficult to prepare for, yet there will always be a need to assist those nations affected, and the United States will continue to be a major contributor to HADR operations around the world. AFSOF's rapid-responder capabilities and relationships make it an excellent DOD asset for HADR missions by priming a disaster area for follow on forces and filling in relief gaps. While AFSOF's personal relationships have supported its HADR operations in the past, its limited interaction with USAID, with other DOD rapid responders, and with the humanitarian assistance community have impacted the ability to apply its unique characteristics during HADR operations. History has shown that disasters are another guarantee in life and every day brings with it the possibility of "the next big one." Should a disaster strike a foreign nation, it is likely the United States will lend a hand and AFSOF will be ready to support rapid-onset disaster relief to mitigate the loss of life and alleviate suffering.

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APPENDIX A. AIR FORCE SPECIAL OPERATIONS COMMAND CORE ACTIVITIES

This appendix takes directly from “AFSOC Core Activities” an Annex to the *Joint Publication 3–05 Special Operations*. The case study titled “Information Operations in Recent Conflicts” was deleted from this Appendix.

As an Air Force major command and the Air Force component to U.S. Special Operations Command (USSOCOM), Air Force special operations forces (AFSOF) are responsible for providing the necessary capabilities to conduct or support these operations and activities. AFSOC refers to these capabilities as core missions. AFSOF conduct these core missions to support USSOCOM directed core activities and any other Secretary of Defense directed tasking. AFSOC core missions include:

Agile Combat Support (ACS). [ACS is] the foundational and crosscutting core mission that enables all AFSOC operational core missions and capabilities of specialized air power: speed, lethality, and global perspective. It effectively creates, prepares, deploys, employs, sustains, and protects Air Force special operations Airmen, assets, and capabilities throughout the range of military operations.

Aviation Foreign Internal Defense (AvFID). [AvFID] delivers [special operations forces] SOF combat aviation advisors necessary to assess, train, advise, assist, and equip partner nation aviation units in airpower employment, sustainment and foreign integration. AvFID is conducted through persistent, periodic, or episodic engagements with [partner nations] that facilitate advanced aviation employment and other aviation-related functions such as security, airfield management, and aircraft maintenance. Mission capabilities are applied across the operational continuum with emphasis on combating terrorism, [foreign internal defense], unconventional warfare, and coalition support. [Combat aviation advisors] advise and assist [geographic combatant commanders], civilian agencies, and foreign aviation units on planning and integrating foreign airpower into theater campaign plans, contingencies, and other joint and multinational activities. [Combat aviation advisor] personnel [assess, train, advise, assist, and equip] foreign aviation combat and combat support units in aircraft maintenance, logistics, airbase defense, command and control, aeromedical support, personal survival, personnel recovery and other functions supporting combat air operations. [Combat aviation advisors] are aligned by flights to the different theaters, and [combat aviation advisor] personnel maintain a high level of garrison training and

readiness in order to deploy on short notice to any nation within the assigned theater.

Command and Control (C2). [C2 is] the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. C2 functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of joint/combined special operations.

Information Operations (IO). [The AFSOC IO mission is] an integrated approach of information-related capabilities during military operations to influence, disrupt, corrupt, or usurp the decision-making of adversaries and potential adversaries while protecting our own. Executed in both a supporting and supported role, IO are predominantly non-kinetic capabilities creating effects in all domains to ensure information superiority. When effectively integrated into operations in the same manner as traditional capabilities, it provides friendly forces the ability to collect, control, exploit, and defend information without effective opposition. The capabilities traditionally associated with IO are electronic warfare, military information support operations (MISO), military deception, and operations security. The purpose of MISO is to induce or reinforce foreign attitudes and behaviors favorable to the originator's objectives. IO is successfully executed not by the employment of a single predetermined capability, but by identifying and using any combination of information-related capabilities necessary to achieve desired effects.

Intelligence, Surveillance, and Reconnaissance (ISR). [ISR] synchronizes and integrates sensors, assets, and processing, exploitation and dissemination in direct support of current and future SOF operations. It consists of manned and remotely piloted aircraft and Distributed Common Ground Systems that deliver actionable intelligence to the SOF operator. ISR produces detailed, specialized products tailored to mission, customer, and pace of operation that gives SOF a decisive advantage against our adversaries.

Precision Strike (PS). [PS] provides the [joint force commander] and the SOF operator with specialized capabilities to find, fix, finish, exploit, analyze and disseminate applicable targets. [Find, fix, finish, exploit, analyze and disseminate] can use a single weapon system or a combination of systems to fulfill elements of the kill chain. PS missions include close air support, air interdiction, and armed reconnaissance. Attributes associated with PS include unparalleled persistence, robust communications, superior situational awareness, precise target identification, lethality, and survivability.

Specialized Air Mobility (SAM). [The SAM core mission] includes specialized mobility and specialized refueling. Specialized mobility is the conduct of rapid global infiltration, exfiltration, and resupply of personnel, equipment, and materiel using specialized systems and tactics. Specialized refueling is the conduct of rapid, global refueling using specialized systems and tactics, thereby greatly increasing mission flexibility and range. These missions may be clandestine, low visibility, or overt and through hostile, denied, or politically sensitive airspace using manned or unmanned platforms. Operations may be conducted with a single aircraft or as part of a larger force package and are normally conducted during periods of darkness.

Special Tactics. [Special tactics] delivers highly specialized, combat proven capabilities to integrate, synchronize, and control air assets to achieve tactical, operational, and strategic objectives. Special Tactics personnel may be comprised of active duty, [Air Force] Reserve Component and Air National Guard forces, which may consist of combat controllers, pararescue, special operations weather teams, and tactical air control party. Special Tactics capabilities consist of air traffic control; assault zone assessment, establishment and control; terminal attack control; fire support; operational preparation of the environment; special reconnaissance; command & control communications; full spectrum personnel and equipment recovery; humanitarian relief; and battlefield trauma care.²⁸⁴

²⁸⁴ Joint Chiefs of Staff, *Special Operations, Joint Publication 3-05, Annex* (Washington, DC: Joint Chiefs of Staff, 2014), last updated January 23, 2015, <https://doctrine.af.mil/download.jsp?filename=3-05-D06-SOF-AFSOC-CORE-MSN.pdf>.

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APPENDIX B. AFSOF DISASTER RESPONSE CONCEPT OF OPERATIONS

This CONOPS establishes a baseline for the use of Air Force Special Operations Forces (AFSOF) in humanitarian assistance and disaster relief (HADR) at the joint special operations air component (JSOAC) level. The influence for this CONOPS is the Navy Warfare Development Command tactical memo (TACMEMO) 3–07.6-06 *Foreign Humanitarian Assistance/Disaster Relief Operations Planning*, which is a planning document for the Navy’s execution of HADR. Additionally, the CONOPS takes inputs from Joint Publication (JP) 3–05 *Special Operations*; JP 3–17 *Air Mobility Operations*; JP 3–29 *Foreign Humanitarian Assistance*; and Air Force Tactics, Techniques, and Procedures (TTP) 3–47 *Contingency Response*. This CONOPS provides commanders a roadmap for the initial response of rapid-onset natural disasters supported by AFSOF.

There are five sections within this CONOPS: Initial Planning, Time-Critical Life-Saving Actions, Disaster Relief Support, Handoff Operations, and United States Agency for International Development (USAID) HADR definitions. The first four sections represent the four phases AFSOF should focus on during HADR, while the final section includes definitions to aid interoperability. The four phases are not necessarily in chronological order; time-critical life-saving actions, disaster relief operations support, and handoff operations can occur at multiple times or even simultaneously. Finally, these four phases are not all-inclusive; they provide bulleted guidance for commanders and their staff to use in planning for AFSOF-supported HADR operations.

1. **Initial Planning.** Rapid-onset natural disasters leave little time for planning, allow for limited to no intelligence gathering, and require an almost immediate response to save lives. Furthermore, the alert and launch process further diminishes time available to provide assistance. This section focuses specifically on what is important during initial planning for HADR.
 - 1.1. **Tailorable and Scalable JSOAC.** The tailorable and scalable unit type code (UTC) of the 9AAHQ allows maximum flexibility for creation of the JSOAC. Expect limited to no support from host nation (HN) or U.S. Department of Defense (DOD) entities initially. The host-nation infrastructure may be destroyed and/or the larger DOD may not bring enough equipment to support AFSOF (communications, medical,

intelligence, civil engineering, supply, fuels, finance, contracting, public affairs, etc.).

1.1.1. United Nations Clusters. USAID and the humanitarian assistance community organize themselves around eleven clusters: Health; Camp Management and Coordination; Emergency Shelter; Nutrition; Logistics; Sanitation, Water, and Hygiene; Education; Early Recovery; Emergency Telecommunications; Food Security; and Protection. The JSOAC should identify and bring specialists that can coordinate with these clusters. Those individuals who will interact with the humanitarian assistance community should bring civilian clothes for attending cluster meetings and stress the desire of AFSOF to assist in meeting the lead agency's intent. Subject matter experts who can explain AFSOF's unique capabilities should be used in the positions. See JP 3–29 *Foreign Humanitarian Assistance*, Appendix D for more information on Intergovernmental and Nongovernmental Organizations.

1.1.2. Size. The UTC used should base itself on size options: small, medium, large. The more unknown the operation, the larger the JSOAC should be with the ability to tailor down as information becomes available.

1.1.3. JSOAC Staging. Attempt to co-locate the JSOAC with the HN's relief hub while avoiding the joint task force's (JTF) deployment location. This should place the JSOAC at less congested airfield, directly in contact with the HN, and able to use the local relief supplies that immediately arrive after a disaster versus U.S. supplies that must be flown in via strategic airlift.

1.1.4. Disaster Response versus Contingency. Consider not using the term contingency for HADR as it implies combat and a mentality that does not conform to the intentions of a HADR operation. Additionally, attempt to limit the use of contingency gear: weapons, armor, helmets as able. AFSOF should present themselves to the disaster survivors as a helping organization versus an invading force. Coordination with the humanitarian assistance community should be done in civilian clothes as much as possible.

1.2. Intelligence Preparation of the Disaster Area. The media is normally the fastest source of intelligence immediately following a disaster. AFSOF should focus requests for information (RFIs) primarily on identifying the placement of the JSOAC as a primary relief hub and then begin to identify additional airfields (from strategic airlift capable to austere) for forward relief spokes. Review airfield surveys for any limitations and attempt to submit waivers early for maximum capability in the future (instrument

meteorological conditions self-contained approach, runway condition, maximum effort aircraft operations, etc.). Anticipate a joint forces air component command commander (JFACC) to gain tactical control (TACON) of AFSOF aircraft, which could complicate airfield surveys and waivers in the future.

1.3. Initial Coordination. Pre-established relationships are one of AFSOF's best practices during disaster response. These networks allow AFSOF to rapidly respond in HADR. If AFSOF can arrive early through established relationships, it primes the area for the use of conventional DOD forces later on. Furthermore, connections made during the operation can set the stage for future cooperation. AFSOF should be presented as a HADR rapid responder to dispel any concerns about special operations myths.

1.3.1. HN. AFSOF should use its connections with the HN to gain information on where to stage the JSOAC, where the relief supplies are located, where there is need for search and rescue or critical aid, and to help expedite country clearances. HN relationships can help keep AFSOF ahead of the declaration process. Local knowledge and intelligence is critical in understanding the disaster area before arrival.

1.3.2. USAID and Humanitarian Community. USAID is the U.S. lead agency for HADR. It is best to have a point-of-contact before arriving at the JSOAC staging area. Additionally, cluster coordination should be done prior to departure via any communication means, including social media, such as Twitter, Facebook, Skype, etc. The humanitarian assistance community extensively uses social media; the UTC should include 2–3 computers capable of using social media websites and not tied to DOD protections/firewalls. Additionally, consider setting up one of these computers at the home station Operations Center.

1.3.3. JTF: MEF and CRG. The geographically located Marine expeditionary force (MEF) typically will establish the JTF, leading the DOD HADR response. It is best to establish a preexisting relationship with the MEF, prior to a disaster occurring. However, once a disaster occurs AFSOF leadership should make contact with the MEF in order to brief its leadership on AFSOF capabilities in case they are needed. Consider placing a liaison at the MEF. Additionally, attempt to make contact with the geographically located contingency response group (CRG) who will most likely be the DOD entity that will do hand-off with AFSOF for airfield control. Lastly, establish a coordinated mission statement, objectives, and end state with the JTF and its supporting agencies. Measures of effectiveness should not be based on pounds of cargo

moved, but on what AFSOF can provide to the overall HADR mission.

- 1.4. Lessons Learned Review.** Since AFSOF does not routinely exercise HADR missions, it is important that commanders and their staff review the latest lessons learned from AFSOF disaster response operations. Operation Unified Assistance, Operation Unified Response, Operation Tomodachi, and Operation Damayan provide excellent lessons learned for AFSOF to review in addition to this thesis and CONOPS.
- 2. Time-Critical Life-Saving Actions.** The inherent nature of disasters is that they require an immediate response. These immediate life-saving responses typically involve search and rescue, casualty evacuation, and the delivery of critical aid. This phase usually only lasts a few days, but as newly accessible disaster locations become available, AFSOF may revert to this phase of operations. The JTF-Forward is not always operational during this phase, so coordination through HN or USAID is crucial.
 - 2.1. Search-and-Rescue Operations.** Search-and-Rescue operations are optimized with a ground force, air surveillance, and casualty evacuation capability. This capability can be included with the initial deployment mission to maximize response. Consider deploying a special tactics team with the advance team ahead of the JSOAC capable of supporting Search-and-Rescue efforts.
 - 2.2. Critical Aid Delivery.** Initial aid delivery typically uses “push” operations, without much analysis on the needs of the survivors. Those unsolicited supplies can quickly clog airfields and warehouses; additionally, there is usually very limited to no materials handling equipment (MHE) available at airfields, significantly delaying operations and limiting crew days. Attempt to limit critical aid to small packages that are easily hand offloaded or consider flying MHE onboard AFSOF aircraft. The various methods of combat offload can also be an excellent work around for delivering palletized supplies until MHE can arrive. Coordinate with special tactics teams for the best placement of relief supplies during this time to maximize ramp space and limit congestion. Additionally, reach out to the HN and USAID if possible to delineate critical items that need to be brought to the operation.
- 3. Disaster Relief Support.** This phase is where AFSOF will spend most of its time during operations. Disaster relief operations may continue after AFSOF redeploys. This phase is estimated to last approximately two weeks. The goal of this phase is to maximize support of the JTF’s objectives.
 - 3.1. Communicate and Integrate Response.** AFSOF’s speed can put it ahead of the DOD’s coordinated effort. To mitigate this, AFSOF needs to align its rapid-responder capabilities with the JTF: speed, organic command and

control (C2), unique mission sets, and relationships should be leveraged to fill any gaps during the initial stages of the disaster response.

3.1.1. HN Inclusion. While AFSOF expertise can be vital in HADR, the HN should always be put in the front of the operation and empowered to its utmost capacity. AFSOF should try to limit conducting operations that it will not be able to turnover to a replacement force or the HN.

3.1.2. Liaison. AFSOF should limit redundancy and duplicated efforts while maximizing unity of effort. This occurs through liaisons established within the JTF in order to inform the DOD force of AFSOF's capabilities and improve information sharing.

3.2. Move and Deliver Aid. Supply chains need to be designed and deployed immediately. The Hub-and-Spoke scheme is an excellent tactic for moving relief supplies through the disaster area. Once in this phase, operations should change quickly from "push" orientation to "pull" focused. A needs assessment is critical to identify what supplies should go where; the Office of United States Foreign Disaster Assistance (OFDA) disaster assistance response team (DART) and the JTF should be prioritizing and communicating requirements, if not provide inputs.

3.2.1. Hub-and-Spoke. The Hub-and-Spoke scheme of operations is clearly described in the JP 3-17 *Air Mobility Operations*. Additionally, the multi-service TTP 3-17.2/3-21.1B/3-02.18/3-2.68 *Airfield Opening* details airfield opening, operations, and handoff. AFSOF should be proactive in identifying airfields to further this tactic and avoid single points of failure. Focus on airfields that will support strategic airlifters first, and then proceed to tactical airlift capable runways. AFSOF is most valuable during this phase by enabling 24-hour operations when other aviation elements are limited by lighting and electricity. Additionally, build forward area refueling point locations for helicopter and tilt-rotor refueling support.

3.2.2. MHE. MHE is a significant weakness for initial operations for rapid responders. Delays in the delivery of MHE can significantly hamper time critical operations. Consider bringing more MHE than organic relief supplies. Due to AFSOF's unique aircraft, they are more efficiently used to transport mission support equipment than flying relief aid initially to the disaster area.

3.2.3. 24-Hour Operations. Special tactics teams and the unique mission sets of AFSOF aircraft support 24-hour operations at airfields in coordination with HN or other DOD aircraft. The goal should be to get a major hub-and-spoke to 24-hour operations as soon as

possible, and then handoff operations and move on to other airfields as coordinated with the lead agency. Consider using slot times to regulate the flow of traffic within the hub-and-spoke airfields, especially those with limited maximum on ground (MOG) capability or MHE.

3.2.4. Airdrop. This is a last ditch effort in the humanitarian assistance community. If necessary, begin prepping the HN, USAID, and humanitarian community of its possibility as early as possible in order to avoid a public affairs backlash. Use the term aerial delivery, instead of airdrop due to the humanitarian community's sensitivity with the term. USAID priorities are typically not logistical, but in empowering the HN to sustain its own distribution of relief and recovery aid. While airdrop can be extremely effective, if aid is left unattended with no formal distribution, it can create unwanted or dangerous effects. Field Manual 4–20.147/Air Force Technical order 13C7-37-31 details *Humanitarian Airdrop*.

4. Handoff Operations. Due to limitations in AFSOF's ability to sustain itself, seamless handoff coordination needs to be a focus of operations immediately. An example end statement is, "Assigned HADR operations handed over to designated U.S. forces, HN forces, international governmental organization, non-governmental organization, and/or private organizations."

4.1. Airfield Handoff. The multi-service TTP 3–17.2/3-21.1B/3-02.18/3-2.68 *Airfield Opening* provides airfield handoff checklists and situational report templates for transitioning from small team control to larger conventional air forces.

4.2. C2 Handoff. The Air Force TTP 3–4.7 *Contingency Response* provides multiple checklists for use to transition forces during disaster response.

4.3. Redeployment of Forces. AFSOF should start coordinating for its redeployment as soon as possible. AFSOF should be used to bridge DOD capability gaps and prime the disaster area for conventional forces; however AFSOF should limit its use in conventional roles.

5. USAID Definitions. The following is a list of definitions that USAID uses that differ from the DOD, or the DOD does not use, during HADR operations. Reference Chapter II of this thesis for a comparison of the USAID and DOD definitions.

Complex Emergencies: "Situations that develop because of or during a human conflict."²⁸⁵

²⁸⁵ United States Agency for International Development, *Field Operations Guide for Disaster Assessment and Response*, F–2.

Disaster Relief: “Immediate, life sustaining assistance provided to disaster victims.”²⁸⁶

Humanitarian Assistance: “Generally considered emergency assistance in life-saving relief efforts.”²⁸⁷

Natural Disasters: “Earthquakes, hurricanes, droughts, etc., and are not initiated by or involved in human conflict.”²⁸⁸

Preparedness: “Activities undertaken in advance to ensure effective response to the impact of disasters.”²⁸⁹

²⁸⁶ United States Agency for International Development, *ADS Chapter 251: International Disaster Assistance*, 10.

²⁸⁷ United States Agency for International Development, *Joint Humanitarian Operations Course (JHOC) Workbook*, 14.

²⁸⁸ United States Agency for International Development, *Field Operations Guide for Disaster Assessment and Response*, F-2.

²⁸⁹ *Ibid.*, V-6.

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